

**NEW '61 SHOW TRENDS!**

**ROD &**

*First Shows Indicate  
Styling Direction*

MAY 1961 25¢

*Custom*  
off-the-road bike test

**'61 500cc MATCHLESS**

plus

**BIG BEAR H&H • MINI-BIKES**



**Bold Treatment for  
CORVETTE**

see page 16

# **INTER NATIONAL AUTORAMA SHOW**

Memorial Sports Arena,  
Los Angeles  
April 18, 19, 20, 21, 22, 23

**CUSTOMS • COMPETITION  
BIKES • KARTS • BOATS  
ROADSTERS • DRAGSTERS**

Thirty-one classes in all —  
America's biggest car show



**FOR COMPLETE  
AUTORAMA DETAILS  
ON ENTRY—COMMERCIAL  
BOOTHS—PROGRAM  
ADVERTISING, WRITE:**

**TRIDENTS CAR CLUB, INC.  
P. O. BOX 89  
MAYWOOD, CALIFORNIA  
OR CALL: HOLLYWOOD 6-4043**

## **FEATURING:**

A National Miniature  
Car Contest. Four  
major divisions  
— Trophies — Cash —  
Scholarships. Entry Fee—\$1.00  
per model, plus return postage.  
Package carefully and ship your  
model car to: **TRIDENTS,**  
P. O. Box 89, Maywood,  
California

# THE MOST SENSATIONAL NEW COMPETITOR ON THE TRACK!

Designed and engineered to win against the toughest competition, the new Sears Kart handles easily, steers accurately, corners fast and really blows down the straightaways.

Built to take the toughest strains of continuous racing — on any kind of track. You'll get the most of your life every time you race. And you'll know you've got the fastest Sears Racing Kart ever built. Even more important, you'll know you've got the best.

There are Sears Karts and engines for all classes of racing. Sears track in 10 great layouts. See them soon.

THIS YOUR NEAREST SEARS RETAIL STORE OR CATALOG SALES OFFICE for more information on track of postcard and mail for information.



- Reinforced steel frame and axle mounted in high speed Tension bearings.
- Heavy-duty speed control system.
- Drag-link and tie rod steering system for easy handling.
- New replacement drive shaft with flow air-cooled pistons without oil loss.
- Deluxe quality wheels, heavy-duty rubber tires, shock absorbers, coil springs, rack and pinion steering.
- Rugged notched and offset metal wheels, 12" x 10" tubular steel frame, 1 1/2" x 10" chromoly front axle with mounting brackets.
- Front suspension system with shock absorbers, coil springs, tie rods.
- Nylon cord racing wheels, standard equipment.

ONLY 10% DOWN PUTS YOU ON THE TRACK IN THIS SENSATIONAL NEW

## SEARS KART



**\$359<sup>00</sup>**  
the standard factory  
 slightly higher to cover cost

SEARS, ROEBUCK AND CO.  
 Dept. 138, Chicago 7, Illinois

Please send me complete details on the Sears  
 3HP 300 Racing Kart FREE without obligation!

NAME \_\_\_\_\_  
 ADDRESS \_\_\_\_\_  
 CITY \_\_\_\_\_  
 STATE \_\_\_\_\_

**SEARS**  
 ROEBUCK AND CO.

*Satisfaction guaranteed or your money back*

MAY, 1961

in this month's

first issue of our ninth year

# ROD & *Custom*

LYNN WINELAND  
NEAL EAST  
TOM UHLER  
DOANE SPENCER  
LES RITCHEY  
BARBARA BELO  
HARRY KAUFMANN  
BOB GOTO

## THE MINI-BIKE—A BOON TO MOBILE MANKIND

## SAN MATEO SHOWMANSHIP

## HOT IN THE DESERT

### CARS OF EVERY KIND

- TIGER BY THE TAIL** cover corvette shows the latest in lines ..... 16  
**JOLTIN' STOVEBOLT** '37 chevy gets boost from later model bent-8 ..... 24  
**DRAFTER ON THE BLOCKS** something borrowed to complete a roadster ..... 30  
**READY RAIL** shrank bros. goar feeds well on its competitors ..... 40

### FEATHERS FOR THE FUNNYBONE

- THE GREATEST SHOW ON MIRTH** car shows through the eyes of joe henning.... 32  
**THE STORY OF MY LIFE** as told to don jolley by the typical shop owner ..... 42  
**ARIN CEE** arin tries an economy-style feathered ford swap ..... 54

### FOR THE BETTER INFORMED

- THE STARTING LINE — by the editor** our leader speaks on car clubs ..... 6  
**OUR READERS WRITE — or wrong** the voices of our best critics ..... 8  
**AUTOMART** yours for better rodding and customizing ..... 14  
**THE NEW FORD ENGINES — Part II** carburetor modifications for increased power 26  
**BIG BEAR BOGUS** even the butterflies were disappointed ..... 44  
**TECH SPECS** help for your headaches by our technical editor ..... 54  
**JUST CHATTERING** some thoughts on professionalizing drag racing ..... 66

## MAY 1961

editor  
associate editor  
graphics editor  
technical editor  
technical editor  
editorial assistant  
advertising  
ad production

with transportation and traffic problems becoming worse and worse, public servant carl kohler offers a worthy solution ..... 20

the west's first big show of the year brings record attendance of spectators to view the new trends in showmanship for 1961 ..... 36

versatility of 500cc bike for street, cow-trailing and cross-country racing is proven in 1000 mile test under grueling conditions with pleasing results ..... 46

**E. E. PETERSEN**

*publisher*

**WALLY PARKS**

*editorial director*

**LEE EYAN**

*general manager*

**AL HAACE**

*cover art director*

**HERB METCALF**

*circulation mgr.*

**A. M. BENEDICT**

*advertising director*

Published monthly by Quinn Publications, Inc., 5959 Hollywood Blvd., Los Angeles 28, Calif. Second-class postage paid at Los Angeles, California and at additional mailing offices. Subscription in whole or part forbidden except by permission of the publisher. Copyright 1961 by Quinn Publications, Inc. Subscription price: \$3.00 per year throughout the world. Single copy 25 cents. Eastern Advertising: 17 East 40th St., N. Y. C. Detroit Advertising: 3227 Book Bldg., Detroit 26, Mich. Midwest Advertising: 260 N. Michigan Ave., Chicago 1, Ill. St. Louis Office: 918 Olive St., Ste. 909, St. Louis, Missouri.

MAY, 1961

## DON'T READ

### ROD & CUSTOM!!!!!!

Right!...Don't consider subscribing to R&C unless you're interested in only the best hot rods and custom cars. R&C's editors believe in providing their readers with details and facts on outstanding cars like the Summers Bros. Chrysler-fired, rear engine T roadster. Trips to the drags, top auto shows, Bonneville, cycle events and grass roots probing into hidden garages where new iron is under the torch provides you with complete information on exciting new trends. Torsion bar suspension, fuel injection, independent rear axles, blower drives and hop up procedures all fall under the careful scrutiny of the R&C staff. No...if you're in the group that hides poor construction and design with angel hair and aluminum foil or covers bad metalwork with pleated upholstery, don't read Rod & Custom...It's not your kind of book. BUT...if you're a real, dyed-in-the-wool rodder who can't stand phoney, flash-in-the-pan, would-be hot rods—the kind of guy (or gal) that thinks a custom is an improved version of a stock car and not just a finned scooped and scalloped blob of inanimate metal—ROD & CUSTOM MAGAZINE is for you and you won't want to miss an issue. Why not take advantage of the offer below so you'll get R&C every month? This is the last month we can make this offer. Get with it!

**ROD & Custom**

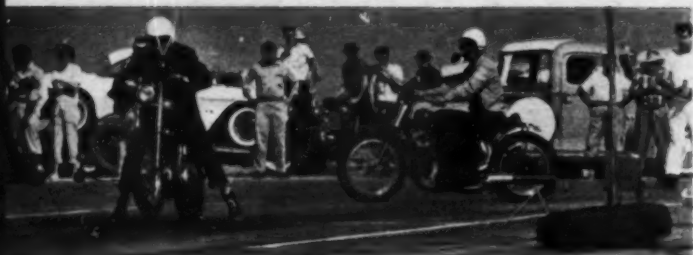
Don't disappoint them. **SUBSCRIBE NOW!**

5959 hollywood blvd.  
hollywood 28, california  
enclosed is \$3.00 for 18 months ☐

name .....

address .....

city ..... state .....



**O**FTENTIMES IN THE unceasing quest of a preset goal something worthwhile is achieved which goes relatively unnoticed as just another rung on the upward ladder. So it has been in the world of rods and customs. Years ago — and not many at that — a group of car enthusiasts, this writer among them, banded together to organize hot rodding activities. The ultimate goal was to obtain facilities across the nation where cars might be run legally and safely; an outlet for the enthusiastic energy of mechanically bent youngsters. Once organized as the National Hot Rod Association the first steps were taken in a drive to improve public relations. The leaders of NHRA realized all too well that the term *hot rod* needed a new connotation in the eyes of the rank and file. Clubs scattered across the land were organized and helped in their efforts to sway public opinion. Car shows were staged, charities assisted, the needy cared for, safety checks held and the gaze of government officials directed to a wholesome sport worthy of their support.

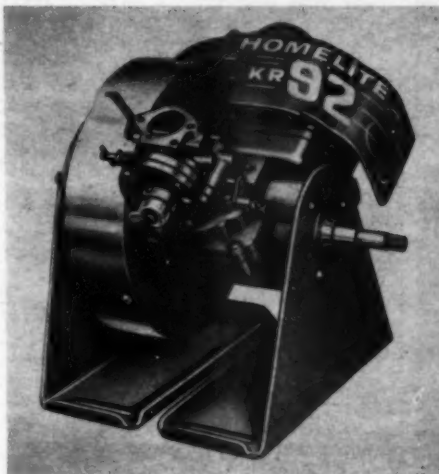
Gradually, as local groups with the backing of NHRA Headquarters began to push for recognition, the long-sought facilities were made available. Drag strips began to materialize on little-used airfields and were carved from level farmland. The drag racing program was underway. As the impetus grew stronger, the competition aspect grew to dominate the picture and the long awaited goal was achieved. Today competition is on a national basis semiannually, a weekly event in local areas.

Somewhere along the line the concentration on worthwhile activities of the car clubs took a back seat. The desired result had been achieved and it was no longer mandatory to place the emphasis on good public relations. Many young men, attracted to the sport by the car club program had no particular interest in drag racing, thus when the club program began to taper off these men were left behind. One of the principle rungs of the ladder to success had been literally *stepped on*. The time to refocus interest on club activities has come. Let's not forget the members of our sport who are socially and civic-minded as we romp headlong toward faster speeds and quicker e.t.'s. Most of all, let's not forget the public and their short memories of the good we've done and their quick condemnation of our shortcomings. We could find ourselves in the same spot as we were a dozen years ago. ●

lynn wineland  
ROD & CUSTOM

# NEW WORLD CHAMPS

## SPORTSMAN CLASS



**HOMELITE K-92 ENGINE**



**DAVID LATSHA**

**NASSAU:** A Spitfire-Special Kart powered by two Homelite K-92 engines took first place in the combined B&C Sportsman Class in the Second Annual International Grand Prix De Kart World Championship races, held in Nassau, November 21 through 23.

The driver was David Latscha of Camp Hill, Penna.

Designed to run at full throttle hour after hour, the new Homelite K-92 is precision constructed throughout. Ball and needle bearings, domed aluminum piston, and Homelite's famous pyramid reed valve make this great Kart engine unequalled for smooth power and performance.

Get the full race-winning story at your local Homelite Dealer's.

**\$99.95**

Including universal mounting brackets FOB nearest Homelite branch

**DEALER  
INQUIRIES  
INVITED**

**HOMELITE**  
A DIVISION OF TEXTRON INC.

5625 Riverdale Avenue, Port Chester, New York

### K-92 SPEC'S

**Weight:** 12 lbs. 8 ozs. (including mounting brackets).

**Carburetor:** Pump diaphragm. Manual choke.

**Ignition:** High tension flywheel magneto, dust and rainproof.

**Valve:** Homelite pyramid reed.

**Bore:** 2 7/8" **Stroke:** 1 1/2"

**Displacement:** 5.64

**Available Accessories:** Clutch, air cleaner, starter and various sized sprockets.

### New Stroker Kit \$37.00

Contains cylinder and crankshaft to increase displacement of K-92 engine to 9.8 cubic inches and increase horsepower up to 15%.

## OUR READERS WRITE - or wrong

### R&C HELPS OUT

Enclosed is a picture of my '30 Ford Coupe, which I have been working on the last two years. I have performed all the body and engine work myself and soon, hoping to finish within the next year. The engine is a '58 Olds J-2 with a '37 La Salle floor shift run through a Caddy rear end. It also has a hydrau-



lic clutch, radio, heater, two electric fuel pumps and truck clutch assembly. I have many plans for the engine but no money. So far it cost me around \$1000, believe it or not. I hope my ambitions will rate a small space in your inspiring magazine. I would also like to say, without your magazine I would not have solved the many problems I ran into.

Louis Sacco

Detroit, Michigan

### CORRECTION FROM CANADA

I am very pleased to see that Ontario is beginning to get some coverage in your fine magazine. I enjoyed your article in the February issue on the rod and custom show at Welland very much, with one exception - the four cylinder dragster depicted on page 57 does not belong to James Cowan as stated, but to Graeme L. Yanocko. Mr. Cowan merely did some valve work for "Gray".

Gray did most of the work on his dragster at his own speed and custom shop, Gray's Powerhouse, R.R. #1, Simcoe. Gray runs at Koehler Dragway at Cayuga, where he turned the Canadian Championship record of 113.92 mph.

For the past four years Gray has been an active member of the Tri-County Trompers Rod & Kustom Club of Simcoe as well as the Automobile Timing Association of Ontario. His valuable advice and experience has been sincerely appreciated by both organizations and we consider him as one of the truly great Canadian "Hot Rodders".

Keep up the good work and I hope to see more coverage on this side of the border in the future.

Jerry McCairns

President,  
Tri-County Trompers,  
332 Queensway W., Simcoe, Ont.

\* Our apologies for the misinformation. R&C is always happy to publish reports on shows and drags from the other side of the border. Many of our regular readers are Canadian and some of our better features have been of rods and customs from the land to the north.

### MORE LAUDS FROM CANADA

Thanks ever so much for the excellent coverage on the show held in Welland, Ont. It's a real pleasure to think that we're being remembered even though we don't go at things in the big way you do down there.

I have no moans or groans about your publication but live only for the do it yourself projects.

Thanks again for the most complete magazine on the stands today.

Sincerely,  
John M. Wiley  
Peterborough, Ont.

**RODDING, KARTING CATCH ON  
"DOWN UNDER"**

I am a constant reader of your mag, and have enclosed a drawing of one of my 'Forty Fords, which I hope will find a place in "Our Readers Write" column.



I am 16 years old, and in 2 years time, when able to hold a license, would like to build a real "hot" rod. The type of crate I would like to make is a 'Forty Ford. At the moment, I would like a little information on how to lower the front end of a 'Forty without the use of "shackles".

Here, we have just opened our first go kart raceway. These karts are catching on like wildfire. A couple of cats I know, have one; they're the most!

I have also noticed around town that a few of the older kids have made rough rods, but have fairly good ideas incorporated. We started to get your fine mag about a year ago. I guess it was a case of better later than never for us "Down Under".

Alex Schuld      Malabar, New South  
Wales, Australia

• The tidliest way to lower the front on any of the "A" through '48 Fords is through use of a dropped axle. The axle is replaced with a stretched or extended unit having exactly the same measurements except for the king pin holes which are located higher than stock. Up to 3" of drop are used on the "A" through '34 models, and 1½" is about maximum for later years because of the fenders, which should be trimmed even then. If you can't get the item on an exchange basis from the States perhaps continued on page 12

MAY, 1961

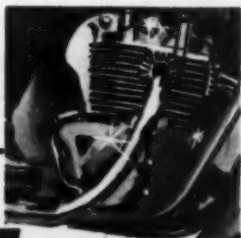
## ENGINE SWAPPERS!

Part Two of *"Fit a Feathered Ford to Your 'Forty Freighter"* begun in last month will appear in the

**JUNE 1961 R & C**

**On Sale April 25th**

**KNOW  
THE  
PRECISION  
POWER...  
OF A  
'61**



# TRIUMPH

Thrill to the smooth surging power of a '61 Triumph! Reach a new high in real motoring excitement, 'cycling satisfaction!

Never before in motoring history has the connoisseur of fine-engineered, precision-built machinery seen such a compact package of pulsing power mounted in frame or chassis . . . two-wheel or four! See your Triumph dealer for FREE demonstration ride!

**GET FREE FULL-COLOR, FULL-LINE 1961 CATALOG**

Mail this coupon to nearest address

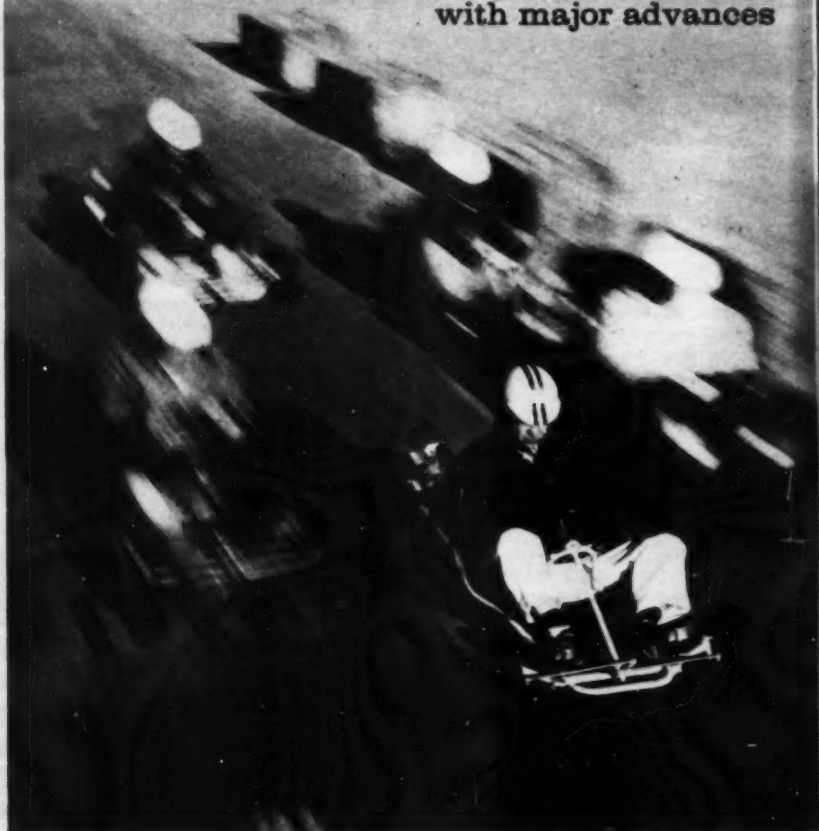
Johnson Motors Inc. 1500 Broadway St. New York, N.Y.	In the East <b>TRIUMPH</b> Corporation Towson, Baltimore 4 Maryland
--	--

Please send FREE full-color, full-line 1961 Triumph catalog to:

NAME \_\_\_\_\_ AGE \_\_\_\_\_  
Please Print  
STREET \_\_\_\_\_  
CITY OR TOWN \_\_\_\_\_ STATE \_\_\_\_\_  
TELEPHONE \_\_\_\_\_ Dept. RC

From the Home of Champions **NEW**  
**SHOCK MOUNTED**  
**McCULLOCH KARTS**

with major advances



## Detachable rear axle unit affords multi-class racing!

From the house of world-renown McCulloch engines comes the fabulous R-1 (racing kart) that will obsolete all existing karts.

The biggest innovation is McCulloch's new rubber-mounted, detachable rear axle unit. In effect, the kart chassis consists of two separate sections. This permits you to switch rear sections and race in several different classes within a matter of minutes. The shock-mounts insulate engine vibration from the frame and steering wheel. Both driver-fatigue and metal-fatigue are sharply reduced, and the life of the kart is extended. It's the greatest engineering advance since karting began.

But here's more! This new kart has Ackermann steering similar to the Indianapolis race cars. Your inside wheel automatically corners tighter than your outside wheel, preventing

front wheel drag and providing more positive control on turns.

New chassis strength! Every frame weld on this new McCulloch kart is contour-fitted before welding—not just butted together.

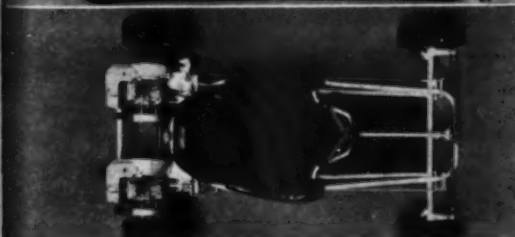
New exclusive fail-safe front spindles! Hardened one-piece for safety.

And other features! Live rear axle, 1" full-keyed; tapered automotive-type roller wheel bearings; aircraft-type disc brake; magnesium wheels; baffled gas tank.

See and drive this exciting new kart at your local McCulloch dealer today. R-1 prices start at only \$230 (less engines). New McCulloch F-1 (family kart) and C-1 (concession kart) also available. Only the new McCulloch karts can match McCulloch's famous engines!

## Go with the champions. Go with McCulloch

Write for free literature on McCulloch's complete line of karts, engines and accessories.  
McCulloch Corporation • 6101 West Century Blvd., Los Angeles 47, California Dept. RC-6  
Prices and specifications subject to change without notice



**A. DETACHABLE REAR AXLE UNIT**—The rear axle, wheels, engine and mounts are combined into one quickly-removable rear unit. Keep 3 complete rear axle power units on hand and race in 3 different classes.

**B. STURDY RUBBER CHASSIS MOUNTS** eliminate metal to metal contact between power chassis and rest of kart. Eight tough, resilient shock absorbers insulate engine vibration from kart frame and steering wheel.

**C. TUBULAR STEEL FRAME** is of Indianapolis space-frame design for combined flexibility and strength. Form fitted welds interlock chassis sections into one solid, long lasting unit.

**D. ACCURATELY ENGINEERED ACKERMANN STEERING** designed for power-through cornering, eliminates wheel drag on turns. Visit your McCulloch dealer and turn the wheels. You'll see the difference immediately.

8-6308-9



AND McCULLOCH ENGINE, TOO!  
TURN THE PAGE

From the Heart of "AUTOLAND"  
Southern California, NEWHOUSE AUTOMOTIVE INDUSTRIES

**YOUR  
FREE  
FULL 5 YEAR  
SUBSCRIPTION  
TO ALL 3**

**1 NEW  
COLOSSAL  
CATALOG**

**BUY DIRECT  
Cut out the  
MIDDLEMAN  
SAVE UP TO  
50%  
In Discounts**

**2  
3**

**TIMELY ADVANCE NEWS BULLETINS**

**FREE AUTO INFORMATION SERVICE**

### AUTO BARGAINS OF THE MONTH

These Special Prices While Supply LASTS!

More High Quality  
**STEEL-PACK MUFFLERS**  
WELD UP **NOW \$4.95** FOR ALL  
TO \$12.95 FOR ALL  
IMPROVE your engine performance and increase mileage. Non-restrictive "straight-through" mufflers. Custom made to your exact special Heavy rolled steel shell. Absolutely leak proof. Pro-shield popular low "Exhaust Pulse" Tube. Universal Weld on type... give approx. length desired.



**NEW TRIPLE CHROME PLATED  
SCAVENGER PIPES**  
THE LATEST CALIF. CRACK  
FOR STREET OR DRAG.  
New Model with extra  
wide "Bell Flare." Flared  
exhaust quickly "flares"  
back pressure, more  
performance, fine  
sounding throaty  
rumble! Easy to  
install. Full 42"  
(4 long) 1 1/2" or  
2" dia. \$3.95 each.  
Shorty (7" long)  
ships over exhaust  
pipe \$3.95 each.



Send Check Cash or Money Order

**Newhouse AUTOMOTIVE INDUSTRIES**  
5105 EAST BEVERLY BLVD., DEPT. 300 LOS ANGELES 22, CALIF.

## NEXT MONTH...

### MODELSTVILLE—

Shows, How-to's,  
New Kits, Tools

### OFF THE SKETCHPAD—

'36 Ford 3-Window

### THE NEW FORD ENGINES—

Part III

Heads, Valve Train

**ON SALE APRIL 25th**

## OUR READERS WRITE

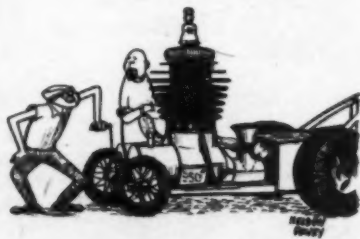
continued

a competent welding shop with large forge could do the job locally from your directions.

### PLEASED!

I was very pleased when I saw the February issue of R&C on the newsstand rack. Thumbing through, I was even more pleased with it. For many months my purchasing your magazine was only an action of an old habit. Before the days of the kart, I had purchased every issue from the time I knew such a magazine existed. Those months of karts resulted in my buying an issue and finding only a couple of pages of customizing and soon I was skipping an issue here and there. It isn't that I think karts and the like should be ignored, but for a while I wished that you had. Anyway, the February issue was greeted with a sigh of relief. Rod & Custom is once more the interesting magazine concerning automotive hobbies and professions. Personally, body restyling is the phase that fascinates me. For some years in the past and probably for some in the future my customizing is limited to models and drawings, but, after college, my fondest dream is a Corvette with a custom body and interior designed by myself. Someday, someday! Please keep R&C a well-rounded little magazine and try not to join a fad. Stay as you have returned!

A returning reader,  
Charles Chaney  
Commerce, Texas



"I GOT IT SHIPPED—AND AT A GREAT PRICE—AND QUICK."

ROD & CUSTOM

Announcing Newest McCulloch Champion

# MC-20



## Most powerful kart engine per cu. inch in America

It's unbeatable! It tops even the famous McCulloch MC-10 that has won every important karting event for years! It's the ultimate refinement of America's championship line of karting engines for every class—from McCulloch, the company that has led the field since karting began.

**MC-20.** A name you'll never forget once you see it in action. Completely new with these unbeatable features: **Weight**—10 pounds • **RPM**—12-15,000 • **Bore**—2.125 • **Compression Ratio**—9.1:1 • **Displacement**—5.8 cu. in. • **Stroke**—1.635. It's packaged dynamite!

**EASIER STARTING** due to new "optimum timing" ignition. New high-pressure magneto-flywheel. McCulloch moisture-proof coil. **COOLER RUNNING** thanks to new controlled air-turbulence created by scientifically-designed engine shroud. **MORE "DIG" AT LOW RPM's** with new multi-speed full-bore carburetion coupled to new powerhead design. It's the "professional details" that help you win. Look at these: **Piston**—lightweight aluminum racing piston with two thin, longwearing chrome-plated rings. **Cylinder**—New die-cast deep finned aluminum alloy. Thicker walls. Added fin for quick heat relief. **Crankshaft**—New lightweight moly-steel alloy. Precision honed, mounted in improved bearing system. **Rods, pins, fuel system**—new, all new.

The MC-20 and the class winning MC-6 are available at your nearby McCulloch dealer. MC-20 list price \$135.00 F.O.B. Los Angeles. MC-20 list price \$137.50. Dealer inquiries invited.

**Go with the champions... Go with McCulloch**

Write for free literature on McCulloch's complete line of karts, engines and accessories.

McCulloch Corporation • 6101 West Century Blvd., Los Angeles 45, California Dept. RC-6A

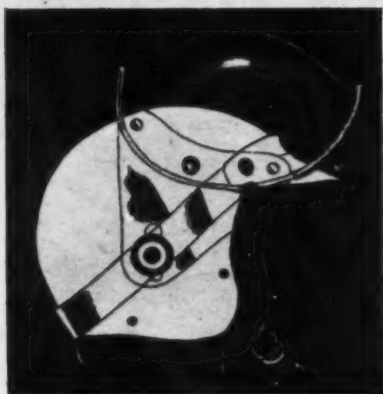
S-03068

Prices and specification subject to change without notice.



MAY, 1961

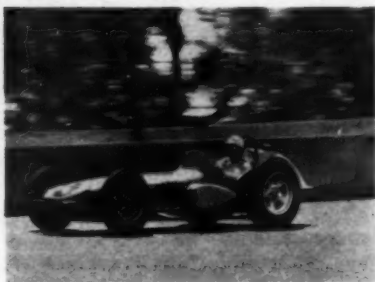
13



An exciting 8 MM Color film of the 1960 Indianapolis "500" is now available for purchase. Produced by So-Cal Productions, it tells the complete action-packed story of this great event—the pre-race preparation—the dramatic start with 33 cars in perfect formation—the almost unbelievable 20 second pit stops—and the greatest duel in Speedway history between Roger Ward and Jim Rathman right up to the checkered flag. Color Film (150 ft.) and descriptive Booklet—\$15.95. Send Check or M.O. to: So-Cal Productions, 1104 S. Victory Blvd. Dept. 3, Burbank, Calif.



"McHal Flip Back Bubble Shield Kit" only \$11.95. From now on your "McHal Flip Back Bubble Shield" replacements will only cost you, \$4.95 instead of the \$7.95 you have been paying for your "Flip Up" bubble shields. Just snap off damaged shield, and snap on replacement shield, using the patented "Pull the Dot," safety snap, that will only come unsnapped when you unsnap it, not by accident. It's as easy as that and you are \$3.00 ahead. Adaptable to your helmet in five seconds, no measuring, no drilling, no glueing, no waiting. Kit with single shield available for \$7.95. Dealers inquiries invited. For descriptive literature clip this product release and mail to address below. McHal Enterprises, 583 No. Prairie Ave., Hawthorne 14, California.



National Hot Rod Association announces the publication of its 1961 Official Drag Rules Handbook. All requirements for classification and safety regulations to run on NHRA strips are clearly listed and all National drag records and World Championship points accumulations will be based on these requirements. Get yours today so that you will be "in the know" and possibly save yourself a lot of time in preparation. Send 50¢ today to: National Hot Rod Assn., 1171 N. Vermont Avenue, Los Angeles 29, California.

# mart

The handiest tool kit to be found anywhere is in the plastic display case. Ideal for all those little jobs that require small tools to get in cramped quarters, the ratcheting Socketool makes quick work of minor repairs. Durable is the word for the sturdy, solid grip handle and the selection of straight and angled extensions allows you to operate the tool offset for better leverage; even a double offset is included. Other sets are available in smaller sizes and packaged in vinyl, roll-up cases. Displayed just below the kit is Shelton's famed Versatool, a handy-sized screwdriver with a selection of three tool steel blades, again with the universal ratcheting head. Look for the Socketool and Versatool at your local hardware or auto supply store. If you don't see them write direct to Shelton Products, Inc., Shelton, Connecticut.



"The 1960 National Championship Drag Races" 16mm sound and color film is now available on a rental basis at \$12.00 per day's use — including postage and insurance. When applying for rental, list date you are planning to show film, plus 2nd and 3rd choice dates. Make check or money order payable to National Hot Rod Assn., and send to: NHRA FILM LIBRARY, Room 204, 2304 Huntington Drive, San Marino, California.

A familiar, fine product in new wrappings is found in the new, 12 ounce can of Steen C. Handier for the 2-cycle enthusiast, be he a mini-bike rider, karter or lawnmower man, the new size allows easy mixing in proper ratios with gallon lots of fuel for proper lubrication and clean burning. The SAE 20W-40 lubricant is a pure chemical and will not settle out in mixture, nor can it form carbon. Steen C is recommended by many manufacturers for use in their products. Ask for the handy blue, white and orange can at your dealers. Available at dealers and distributors everywhere, just \$1.25. For information write Steen Lubricants, 19 East Valley Blvd., Alhambra, Calif.



**ROD &**  
*Custom*



*If there's something yellow with black stripes running  
ahead of you it doesn't necessarily mean you have a...*

**TIGER BY THE**

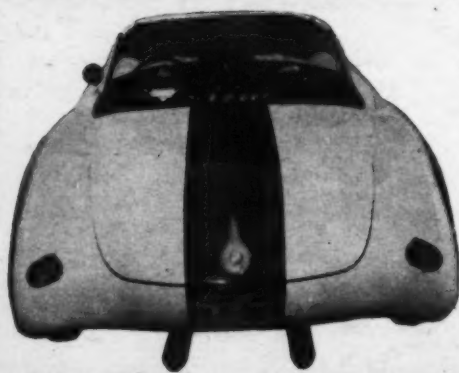
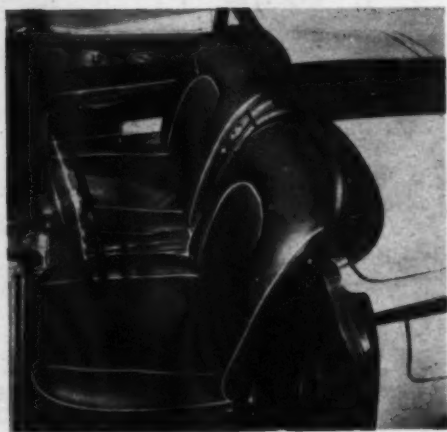
photos by george barris



Collision often marks the beginning rather than the end of a car belonging to an avid customizer. Such is the case of Ronald Rodden of Castro Valley, Calif., and his 1957 Corvette. When the front end was demolished in a wreck, Ron decided the time was ripe to really do something different. With help from Red Lee and Every Robinson of Automotive Artists in Oakland, California, and his wife Phyllis, Ron proceeded to rebuild the car. The nose and front fenders were extended and special headlight openings made using Corvette rims. The grille was made up of  $\frac{1}{4}$ " x 1" aluminum bar. Changes in the side view stem from removal of scoops from top of fenders, fender trim and door handles. Mag wheels and blackwalls look very businesslike.



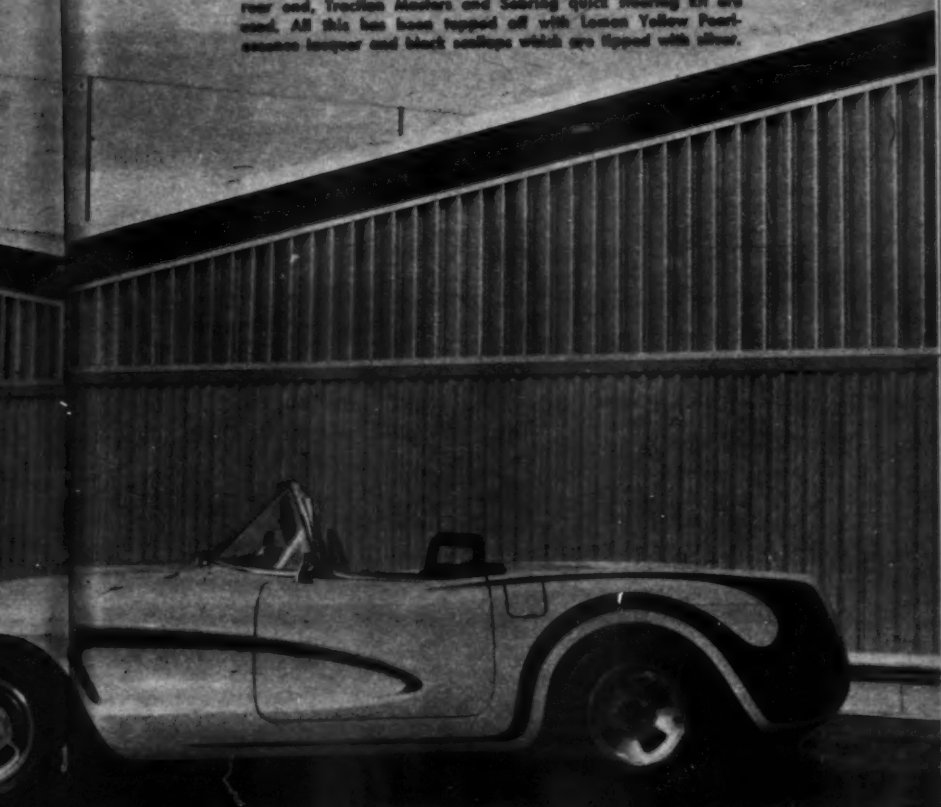
E  
TAIL





## TIGER BY THE TAIL

Rear fender fins were started at the middle of the doors and extend rearward with a slight radius. Fins also curve inward at the top. Taillights were repositioned on the inside of the fins, using shortened Corvette housings. The trunk modification was removed and license was recessed into panel below deck lid. Special made exhaust pipes were made from steel tubing and chromed. Upholstery is black Naugahyde with yellow beading. Roll bar was also upholstered in Naugahyde. Engine modifications include triple carbs, milled heads, Datsun cam and headers. A four speed Corvette transmission, Ford-traction rear end, Traction Masters and Sabring quick steering kit are used. All this has been topped off with Lamon Yellow Pearl-sheen lacquer and black outlines which are tipped with silver.



# THE MINI-BIKE:

a  
*boon to  
mobile  
mankind*

by CARL KOHLER

**T**RAFFIC PROBLEMS seem to be increasing all over the world. Because there seem to be more people than ever before, there also seems to be more traffic than ever before. This is probably because people have a fondness for moving around. That the Traffic Problem threatens to soon become quite acute is proven by reports constantly coming in from the four corners of the earth. Once peaceful, remote jungle trails are heavily clogged with traffic. Deserts are chaotic badlands of traffic. From the turnpikes of New York to the freeways of California — traffic is a major headache.

Everybody seems to be on the move — and everyone seems to be in somebody else's way most, if not all, of the time.

I should like to submit a solution which mankind — intent upon its automobiles, its sportscars and its karts — apparently has overlooked in all the confusion. I suggest that the humble Mini-bike can easily solve every traffic problem currently baffling and enraging all the communities of the world.

Ridiculous, you say?

Well, let's examine the possibilities and see exactly how ridiculous or sensible this unpretentious solution might be.



Illustrations by Don Jolley

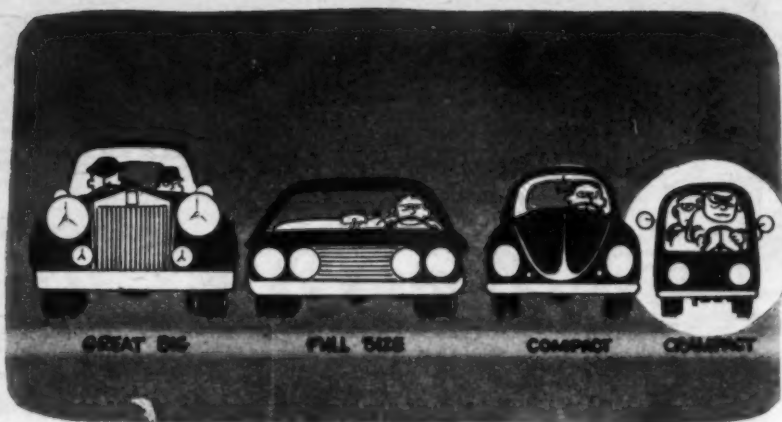
The Mini-bike is small. The Mini-bike is economical. The Mini-bike is smart. On those three premises alone, an entire nation (ours) has recently lost its collective mind over all manner of



strange and unlikely vehicles which are sometimes called compact cars, other times referred to as economy cars.

Why not Mini-bikes? They're smaller than small cars. They're much, much

more economical than the compactest of cars. And, thanks to their timeless, pleasing designs, they offer a sophistication well blended with a wholesome plainness which should delight and



## MINI-BIKES

continued

satisfy people of varying tastes and demands. And since our basic American philosophy is that of *The More That Can Be Gotten Of A Thing, The Better It Must Be* — Mini-bikes qualify very nicely: I unconditionally *guarantee* you can get *more* Mini-bikes into the average garage than *any other* mode of motorized transportation.

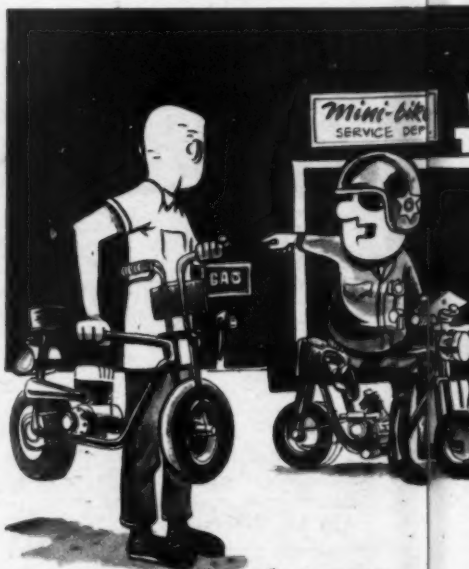
And at far less cost, yet.

We, as a nation, have been accused of succumbing, imperceptibly and steadily, to an alarming state of physical "softness." Yes, it's a dismayingly true fact: We are getting pretty soft and we can thank all the myriad niceties of personal comfort which have been constantly improved and added to our vehicles for this tendency away from physical fitness.

The Mini-bike would correct this untoward, national state of softness. Nobody is going to stay soft very long if they're riding around on a Mini-bike. Mini-bikes are better than a Vic Tanny course, a daily walk of ten miles and a diet of lettuce and spring water when it comes to putting anybody in a condition of physical hardness and quickly toning up the muscular system.

There will, indeed, be few 90-pound

weaklings in America — once Mini-bikes are the national mode of transportation. And the best part of it all, is, even a 90-pound weakling can easily manage a Mini-bike when it comes to lifting it

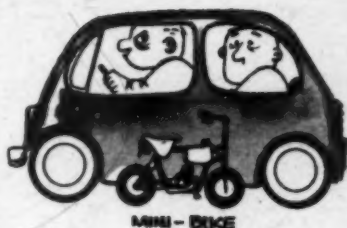


ROD & CUSTOM

over a curbing or carrying it tenderly into the garage at nightfall.

Mini-Bikes would do much toward encouraging a more sincere atmosphere of genuine brotherhood, true democracy in the country. As it stands, most motorists behave in an unkindly and (frequently) antagonistic manner to one another. This is certainly not a national characteristic. If anything, this demonstration of selfishness and minor cruelty is the sad result of traffic problems and their deplorable reaction upon the suffering motorist.

However, can you not imagine vast hordes of Mini-bikists — their happy, relaxed faces wreathed in kindly smiles — nodding fondly to one another as a huge, smoothly-moving traffic of Mini-bikes goes to and fro upon the public thoroughfares and byways? There will be no jam-ups, no snarls because the Mini-bike is small enough — even in large numbers — to make traffic snarl-ups almost impossible on the size of the present roadway.



There is small possibility of snobbery or condescension (a current evil across the land, spawned in many a murky sportscar showroom by ethicless salespeople who would appeal to the worst in people if it sells sportscars) continuing on our roads, bringing with it the usual percentages of accidents and tragedies resulting from active snobbery and superiority in action where courtesy and patience might have prevented many an unfortunate accident.

It is literally impossible to effectively be snobbish or to successfully play the superior personage while seated upon a Mini-bike since the Mini-bike — due to its unassuming design and cheery functioning — simply does not lend itself well as a vehicle for those who need an air of finer-than-thou in order to venture into public.

It would be reasonable to estimate that the lowly, but powerful, Mini-bike would erase all traces of discourtesy, unkindness and dangerous self-righteousness within a generation — were the American Public to adapt their transportation needs entirely to this vehicle.

Naturally, it is not suggested that Mini-bikes attempt to replace ambulances, fire engines, delivery trucks nor police cars. These must serve a different purpose in public road-life and the

continued on page 52

DEK SALE





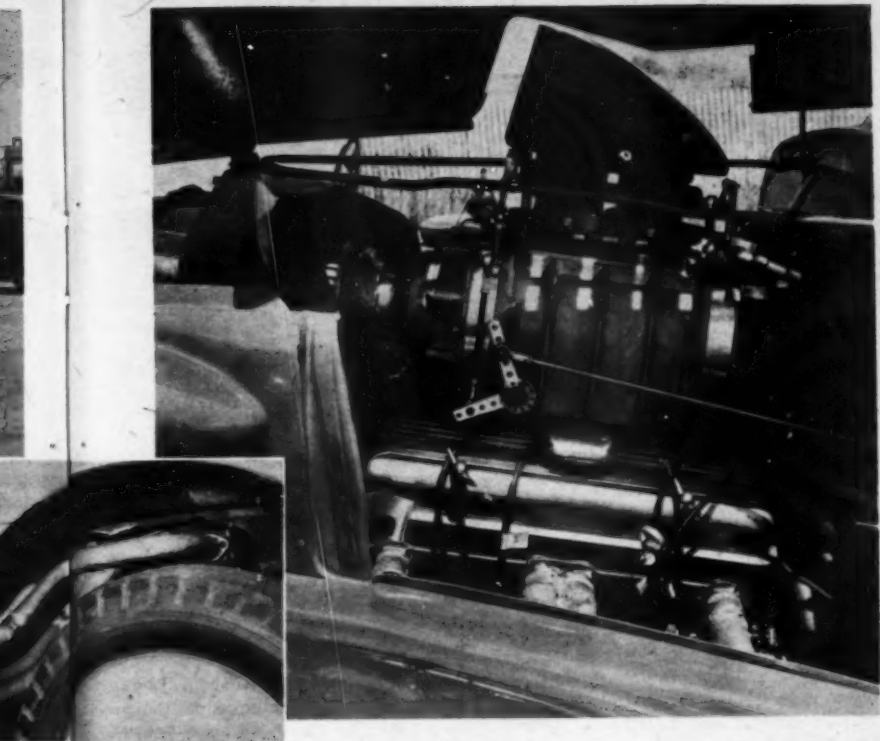
### **blown to boot!**

A desire to build a record-holding car led Dave McClellan and Mac Jameson of Santa Monica, Calif., to build their '38 Chevy coupe. The six-in-a-row was replaced with a 265" Chevy V8 and 4-71 GMC supercharger. An Engle cam, Forgetrue blower pistons with Perfect Circle rings and Schiefer flywheel and clutch are used. Power reaches the asphalt through '38 LaSalle trans, a Holibrand quick change, '59 Chevy axles and M & H Racemaster slicks. Car holds 1320 D Gas record of 110 mph in 13 seconds.



photos by dave cunningham





' **STOVEBOLT**

# THE NEW



**B**OOKS COULD BE written about carburetion alone for the 360 Ford high performance engine. From my experience this part is one of the most important single factors for top performance; as it goes, good carburetor — good performance and vice versa.

To dwell a little on theory, the carburetor doesn't know what it's on so it will do what it was built to do regardless of the engine make and model. It will pass so much air and mix so much gas with it whether the name on the hood is Ford or Chevy. Some carbs are just matched better for different displacement and therefore do a better job on a given engine. Such is the case of the Holley carburetor used on the 360 Ford. We have found bigger carbs will not get the job done and smaller ones are even worse. We set out to refine this carburetor as much as we could and achieved excellent results.

The first problem we came across was with the vacuum operated secondaries. They were extremely slow acting and would not start to budge open before 4000 rpm. In dyno tests they could be hand operated and opened at as low as

2500 rpm under full load for an immediate pick up in horse power hence gaining a substantial increase at low engine revs. There are many approaches to opening the secondaries quicker, but the simplest way to accomplish it is to make them mechanical. The procedure we use is to first remove the secondary closing arm which actuates off the primary butterfly shaft and hooks into the slot on the secondary arm. Next, file a hole that will let a machine screw into the bottom of the slot on the secondary arm. Then get a  $\frac{3}{4}$ " long 10-32 screw, cut a piece of  $\frac{1}{4}$ " copper tubing  $\frac{3}{4}$ " long, and insert the screw into the copper tubing. Now insert the protruding threads of the screw into the filed hole in the secondary throttle arm, put a nut on it and tighten. You now have an actuating arm on the secondaries. A plate has to be installed on the primary butterfly to strike the copper tubing and screw as the primaries open. Taking a piece of flat metal about .060" thick, bend  $\frac{1}{4}$ " flat edge on one side and cut it to  $\frac{1}{2}$ " wide by the length of the primary butterfly arm. Mount the bevel toward the copper shaft. You will notice

# FORD ENGINES

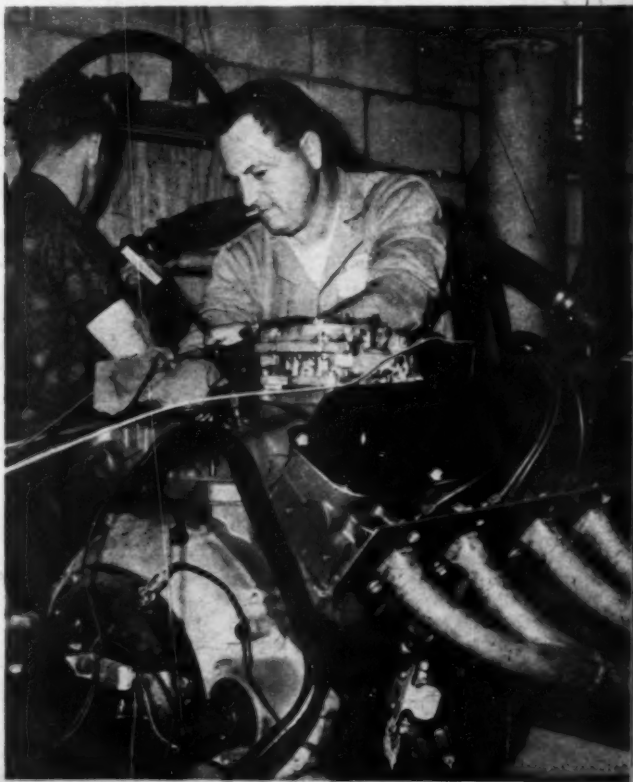
## PART II

### Secrets of Proper Carburetion Lead to Big Payoff in Performance

*a guided tour of basic design, hop and tuning tips for  
the latest big blasters from dearborn*

photos / lynn

Big Ford mill on dyno at author Les Ritchey's shop in Covina, California.  
Minute changes are made between runs to calculate effect on horsepower.



MAY, 1961



Ritchey checks a plug after dyno run in Performance Associates shop. Carburetor shown on engine is being tested for comparison with four throated Holley spoken of in text.

## THE NEW FORD ENGINE continued

a hole on the primary shaft where you took out the secondary closing arm; place the plate on the primary arm and drill a hole in it to correspond with the existing hole in the primary arm. Put a screw through the plate and primary arm and tighten snugly. Open the primary throttle all the way then adjust the plate against the copper shaft until the secondaries are completely open. Tighten the holding screw very tight, release the primary arm and then spot braze the plate to the arm at the top or drill a hole through both plates and bolt.

Remove the secondary diaphragm and

cut two holes in the rubber part of the diaphragm. Stretch the return spring about  $\frac{1}{4}$ " longer, and reinstall on the carburetor. Hook it to the secondary shaft, and you have a built in return spring to return the secondary butterfly plates to the closed position.

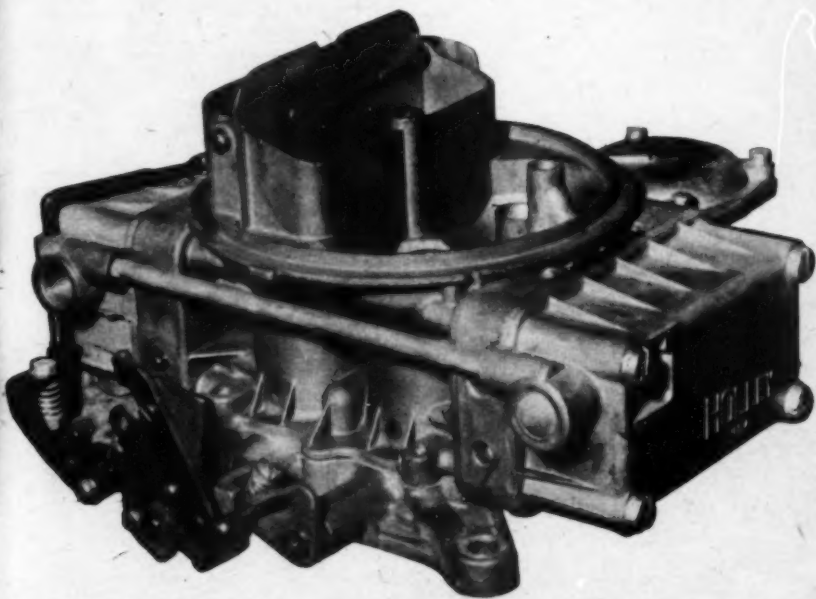
The next and last step is very important. Unless this step is done a very severe flat spot exists when the secondaries are opened quickly. Remove the secondary float bowl and metering plate, then face the plate to you, channel side up. At the top of the plate, straight up from the main secondary

metering holes, you'll see two very minute holes which are .031" in diameter. These are the transition holes which meter the fuel below and immediately above the secondary plate as they first start to open. Due to them opening up quicker than before modification and because of fuel lag this circuit is too lean and will have to be drilled to .042". Reinstall the plate and bowl, and you are ready to run, as far as the mechanical secondaries go.

The only jet changes that we've made that really help is to run .063" in the primary jet block. The power circuit

and secondaries are just right. The float setting can be adjusted externally while the engine is running and should be adjusted until fuel barely runs out of the inspection hole after removing the bowl inspection screws.

We have also found that .002" change in jets in this Holley carburetor accounts for almost a half of a ratio of mixture difference rich or lean depending which way you go, so tread easy on the jet changes. You can not be too meticulous in the carburetor department and time spent here can be well worth it in performance. •



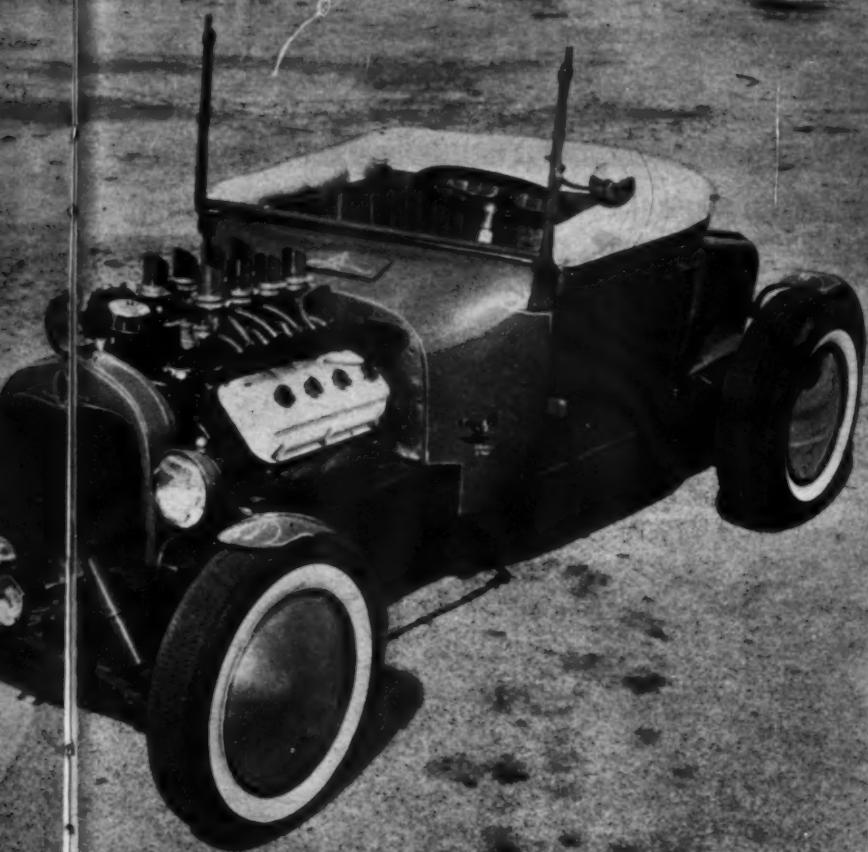
Additional plate bolted to throttle actuating arm pushes against tubing-sheathed machine screw on arm for secondary butterflies. Mechanical actuation of secondaries really helps.



photos by woody higgins



when a guy  
**DRAGSTER**



needs an engine for his "T" he may have to put his...

## ON THE BLOCKS

After trying many different cars, Kenneth Bennett of Detroit, Michigan, finally built his dream's drive—a Model T running on blocks. The car, which was built by Bennett, has been described as "better than a Ford Model T" and "a real car." It was built on a 1910 Ford car and was called the "Bennett Model T." The car was built with a 1910 Ford car, the engine, a 350 Chrysler V8, was taken from the engine and installed in the 1910 Ford car. The car was built with a 1910 Ford car, the engine, a 350 Chrysler V8, was taken from the engine and installed in the 1910 Ford car. The car was built with a 1910 Ford car, the engine, a 350 Chrysler V8, was taken from the engine and installed in the 1910 Ford car.

# THE GREATEST SHOW ON MIRTE

*or a dirty-birds eye view of the auto show*

By HENNING and CONRAD

NOT SINCE THE days of the great showman, P. T. Barnum, has the American public had the opportunity to be so dazzled and razzle-dazzled by brightly painted wagons and plenty of ballyhoo.

The only major difference is the wording on the advance posters. Instead of "The Circus is Coming", they shout "The Auto Show is Coming".

Oh, yes, the wagons have changed slightly down through the years. No longer are they merely the vehicles which transport the show — they are the show. The gilt has been replaced by chrome, however, and they are driven from inside instead of on top. Lest you worry because you can't find the horses that pull these way-out wagons, be assured they are still up front in the same place: just lift that lead lid, Kid!

Needless to say, there are no restrictions as to size, shape or color. Anything goes, and usually does.

One of the leading producers of auto shows is the Kustom King himself, George Barria. George's Flair for showmanship borders on the spectacular; with search lights in the sky, pretty girls and plenty of unusual cars. Taking all these things into consideration, it is not surprising that, while no one gets "fleeced", there is certainly "wool" in a lot of eyes.

A recent Barris Spectacular was the 3rd annual Bakersfield Motor and Boat Show. An epidemic of "Show Fever" was apparent long before the first press notices hit the stands. Every paint shop and amateur striper had more work than they could handle and the chrome

SHOW  
SECTION

"The high-finned, low-slung 'Di Dio 150' from Detroit."





"I hear it's pretty fast, but does it float?"



"No, Johnny,  
it won't bite you.  
It's only a  
Plymouth."



## THE GREATEST SHOW ON MIRTH

continued

shops filled their vats to overflowing with headers, axles and other miscellaneous matter getting the glamour treatment in preparation for the yearly exposition.

The loan departments of the local banks were also filled to overflowing; with rodders trying to borrow enough money to get their headers, axles and other miscellaneous matter out of the chrome vats.

By opening day the town was full of excitement and gaudy cars. When the doors opened at 1:00 P.M., we discovered that the first man in line was our old buddy, Irving Throckmorton III, who had been waiting patiently in line for nearly five minutes. The next enthusiast to arrive was Norm Davis, a local disc jockey, who showed up at 1:30 with his press pass in hand.

It was Thanksgiving Day at home all across the city — and that is a possible explanation of where all the car fanatics were.

Just inside the Main Entrance was the feature attraction; created by Mr. Barris himself. It was a little bat winged car of the future, which rides on a cushion of air, called the X-PAK '100' which caused us to wonder what ever happened to the other '99' models.

Although there was quite a display of local talent, the biggest attraction was the high-finned, low-slung "Di Dia 150" from Detroit. The owner and designer, Andy Di Dia, a retired dress designer, fixed its cost at \$90,000 plus.

From Los Angeles came a pre-war Speedway car which had been reduced to the status of Street Roadster by "altering" the frame, the addition of dual headlights a la '59 Lincoln, etc.

The boats were as gaudy as the cars, if not more so. One daring Aquanaut sported twin blown Cadillac engines in a fourteen footer.

Show goers were treated to a gigantic stage review consisting of a Fashion Show with five live models sponsored by a local discount house and a dance

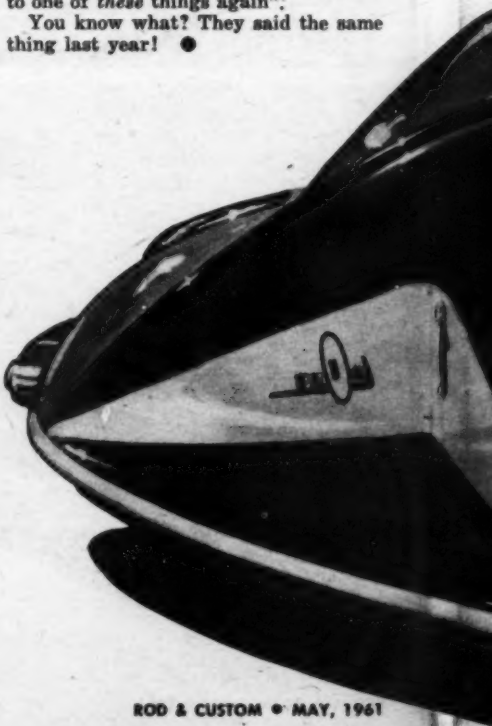
routine by members of a local "School of the Dance", who failed to show up. Between costume changes, the Emcee filled in with some un-authoritative chatter about the cars in the show and introduced such celebrities in the audience as this author, and other unknowns, in the true Ed Sullivan manner.

The high point of each evening was reached at 9:00 P.M. sharp; when Mr. Barris personally conducted a demonstration of the fabulous air car, during which it rose to microscopic heights.

The remainder of the evening was devoted to wandering down rope lined lanes gazing at shiny chrome and trying to find a way out of the maze of cars, boats, angel hair, sea shells, dirty parachutes and Roth's sweat shirt artists.

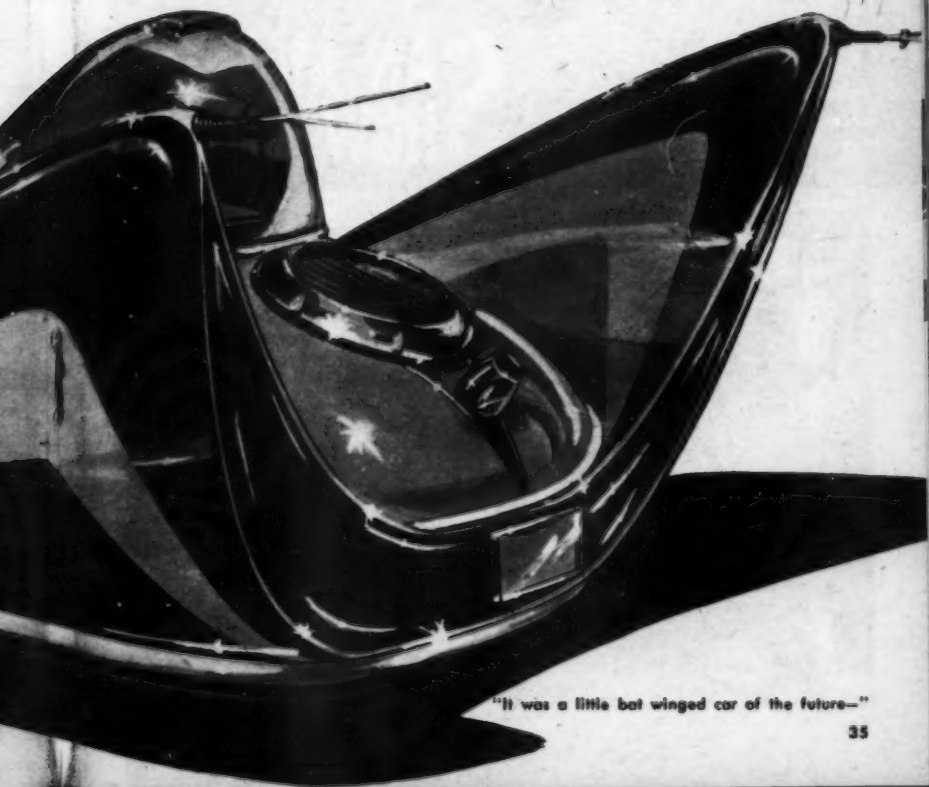
While standing by the exit, we could hear the remarks of the departing show-goers such as: "Well, I'm never going to one of these things again".

You know what? They said the same thing last year! ●

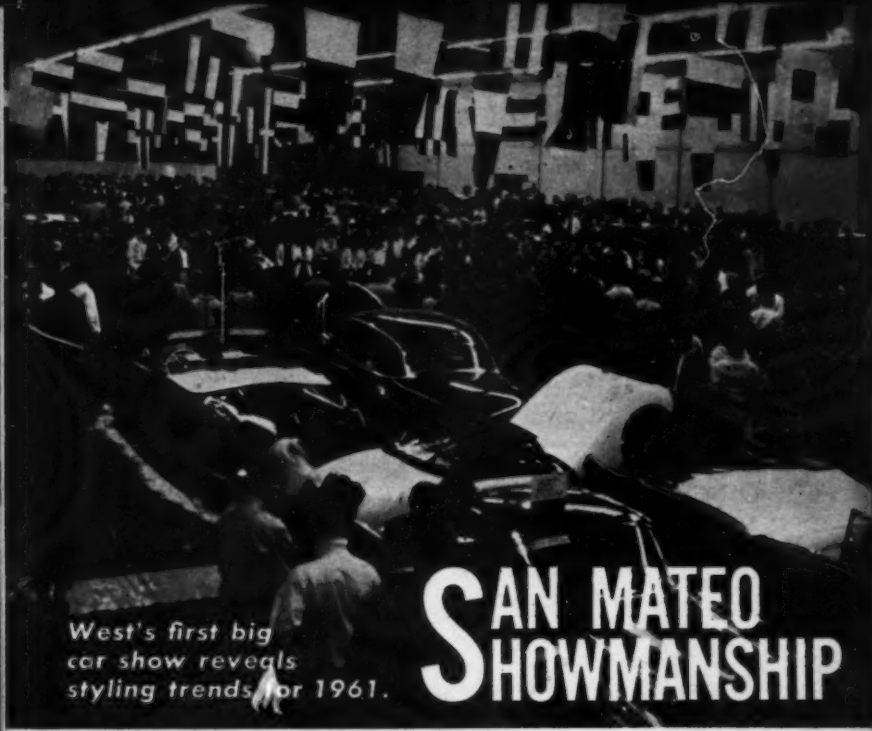




"Daddy! Daddy! Look at the big go-kart!"



"It was a little but winged car of the future—"



West's first big  
car show reveals  
styling trends for 1961.

# SAN MATEO SHOWMANSHIP



The 1961 show season on the West Coast started off in a big way with the San Mateo Custom, Rod and Sports Car Show, held January 6, 7, & 8, in San Mateo, California. It was the biggest yet of six consecutive years for the show and record crowds viewed over one hundred displays. R&C staff took particular notice of new trends which are showing up for 1961. Some are good and some not so good. We sincerely hope that the "wilder the better" school of thought will give way to the sensible this year and that quality workmanship will replace the trend to cover everything with angel hair, pleated Naugahyde and chrome. Some of the better trends are here for you in pictures on pages 38 and 39.

Nick LaPesh brought his beautiful '40 pickup.

Joe Ponzioque's '36 Phaeton drew the crowds.

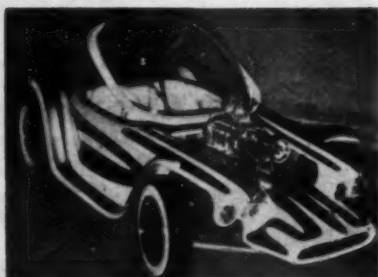
ROD & CUSTOM



Tubular frame dragster has blown Olds engine.



Many of the well known show cars attended.



Roth's "Beatnik Bandit" was a big sensation.



Model A pickup of David Dias was perfection.



While B&C's '32 was in show, Ed Hayward lent stuff his pickup. His '40 coupe was in the show.



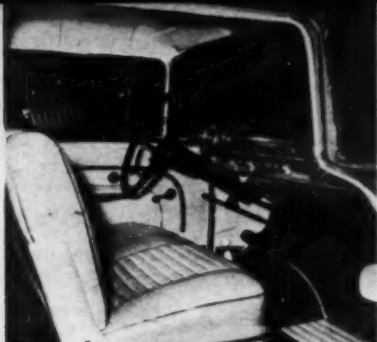
Ron Brusatori displayed a variety of models.  
MAY, 1961



Clarence Catallo's "Silver Sapphire" '32 Ford.



Pickup trend for '61 is open, finished beds.



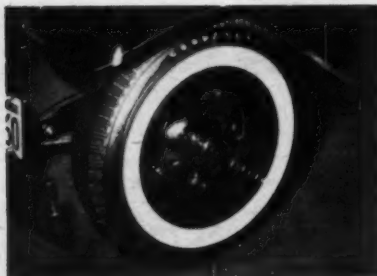
Tasteful interiors will replace the bizarre.



Futuristic '40 sets new trend with headrests.



Well-mounted safety items gets judge's points.



Functional exhausts should replace phonies.

Good looking wheels are going to be a must.

The wise will favor the clean and beautiful front and styles over the far-out treatment.



# SAN MATEO SHOWMANSHIP

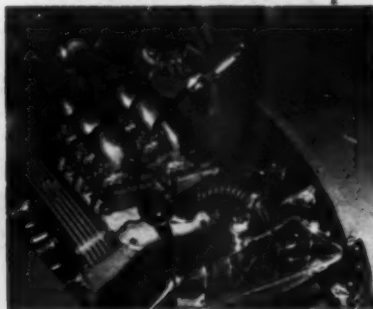
ROD & CUSTOM



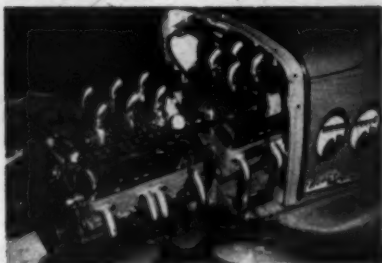
The big winners will be extensively detailed.



Emphasis on special engineering is forecast.

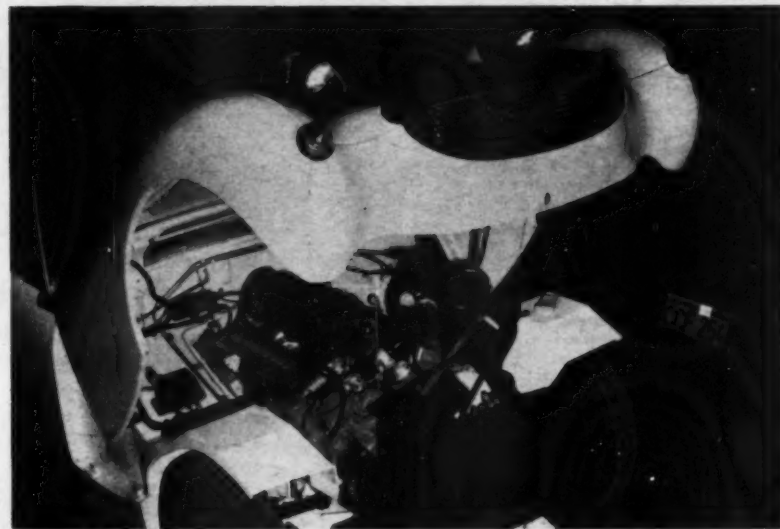


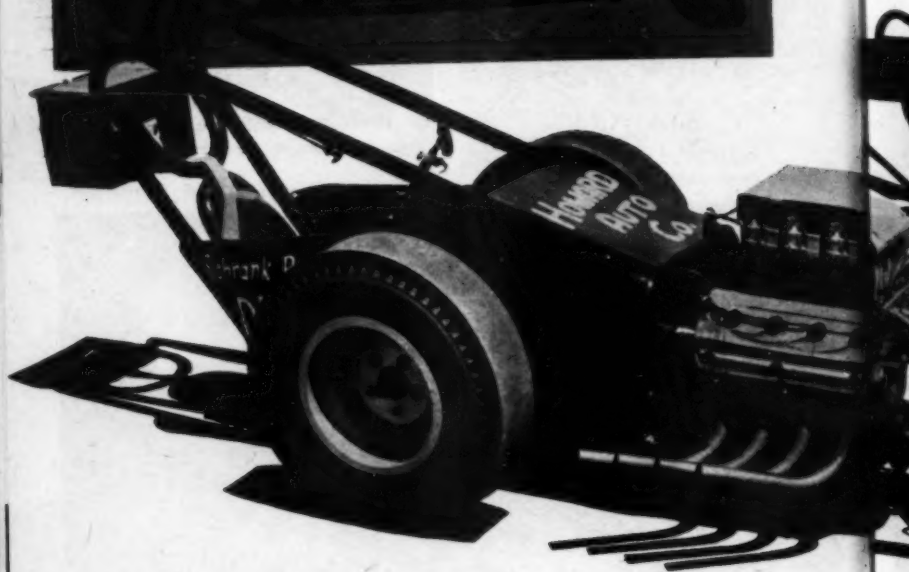
Engine detail — not angel hair — for '61.



More "go" cars will be "show" cars for '61.

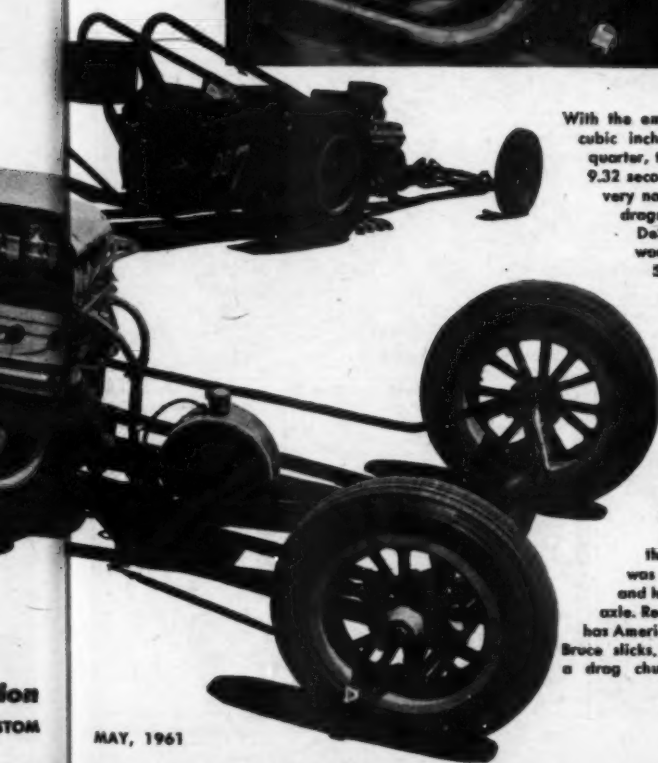
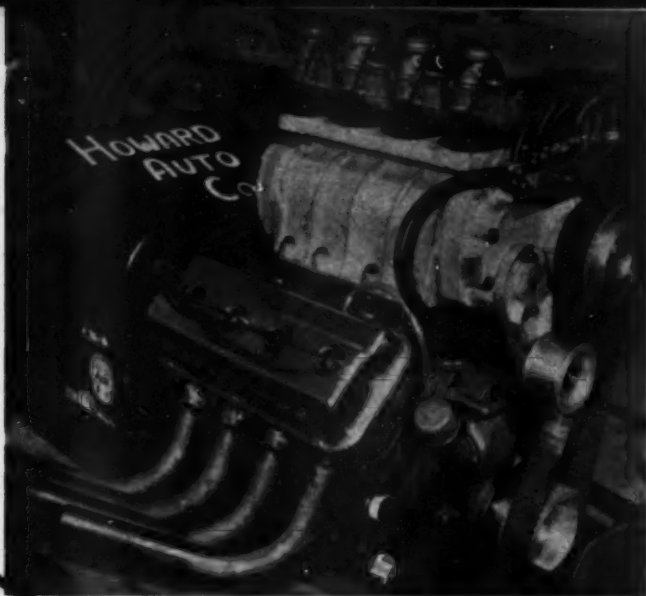
Sprite/Corvette is example of '61 ingenuity.





## READY RAIL

*shrank brothers dragster never shrinks from competition*



With the emphasis on more and more cubic inches for top speeds in the quarter, the speed of 162.63 mph in 9.32 seconds with only 276 inches is very noteworthy. This record for D dragsters was set by Shrank Bros.

DeSoto powered rail from Redwood City, Calif. Walt and Jess

Shrank have loaded the '53 V8 with 2" intake valves, 1 3/4" exhaust valves; Clay Smith cam, pushrods and lifters; Merryman 12 to 1 pistons with American Hammered rings. Heads are '56 Firedome

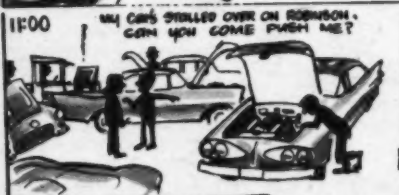
hemispherical; Crower intake manifold carries 8 Stromberg 97 carbs. A Vertex magneto supplies

the fire and a 35 lb. Crower flywheel and Weber double disk clutch transfer power to the in-and-out box. The frame was built by Chassis Research and has a dropped '46 Ford front axle. Rear end is rigid mounted and has American Racing mag wheels with Bruce slicks. Box on roll bar contains a drag chute to assist in stopping.

photos by dave cunningham

# "THE STORY OF MY LIFE"

By Andy, as told to Don Jolley



SAM ANDY - MY CAR'S GOT A  
LOUD TICKIN' NOISE LIKE THIS  
---- IN THE MOTOR - WHAT  
DO YA THINK IT'D BE?

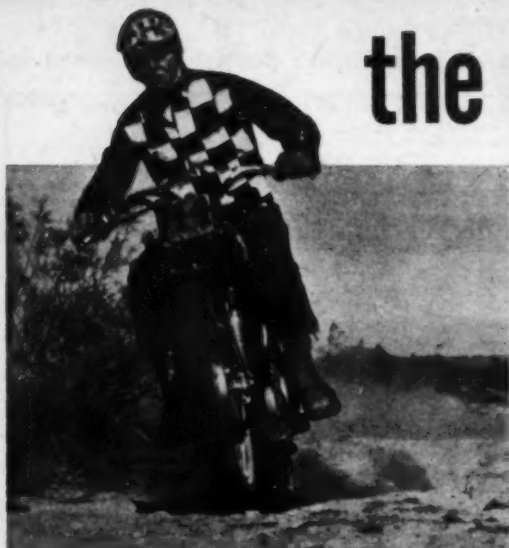


ROD & CUSTOM

or, you can take it with you ...

provided you don't particularly want to.





# the big bear bogus

photos by pat brollier

When the starting banner partially dropped by accident, Checker Marsh Merideth got under way with some 400 riders taking the false start flag . . .

**nation's most anticipated  
cycle race ends  
as "no contest"!**

FOR STAFF MEMBERS of Hot Rod, Car Craft, Kart and R&C awaiting the 40th annual Big Bear Hare & Hound with butterflies flitting about the lower regions, tension eased only after the race had begun — but therein lies a tale: In the past several years the event with its giant entry of near one thousand riders has started earlier than planned. Stretched out over a half mile long starting line the anxious riders become as jittery as a herd of cattle in a thunderstorm and harder to control. A dropped banner was to be the signal to get them under way at 9:30 AM, January 8th. At 9:18, with a hundred bikes still in the pits, one member of the sponsoring Orange County MC slipped and a side of the banner plunged. Riders on the line, feet poised on starter levers needed no more. Sensing the false start, many remained, joined by the latecomers in the pit area. Starting checks were made but not completed as the banner fell legally at 9:30. Some riders went on though disqualified in hopes the mess could be resolved — in vain, the ruling was "No Contest."



...only to be disqualified after the sandy, 42 mile first loop. Over 300 riders stayed . . .



...for the legal start 12 minutes later and stormed through the auto-lined pit lanes to . . .



...ramp off through the sage and rocky canyons of the second leg's 54 miles. The distance...



...began to tell as less experienced riders tired from the grind and fell by the roadside.



Pit action at the second gas check was hectic as some crews went into action while others waited.



Third loop territory encompassed the mountain tops near Big Bear lake with patches of snow...



...and rocks like you can't believe. Riding techniques after 165 miles got sloppy, even for the more experienced riders like Fred Maxley. The final ruling by the AMA was most disheartening.

*no slouch on the street, the '61 Matchless is really...*

# HOT IN THE



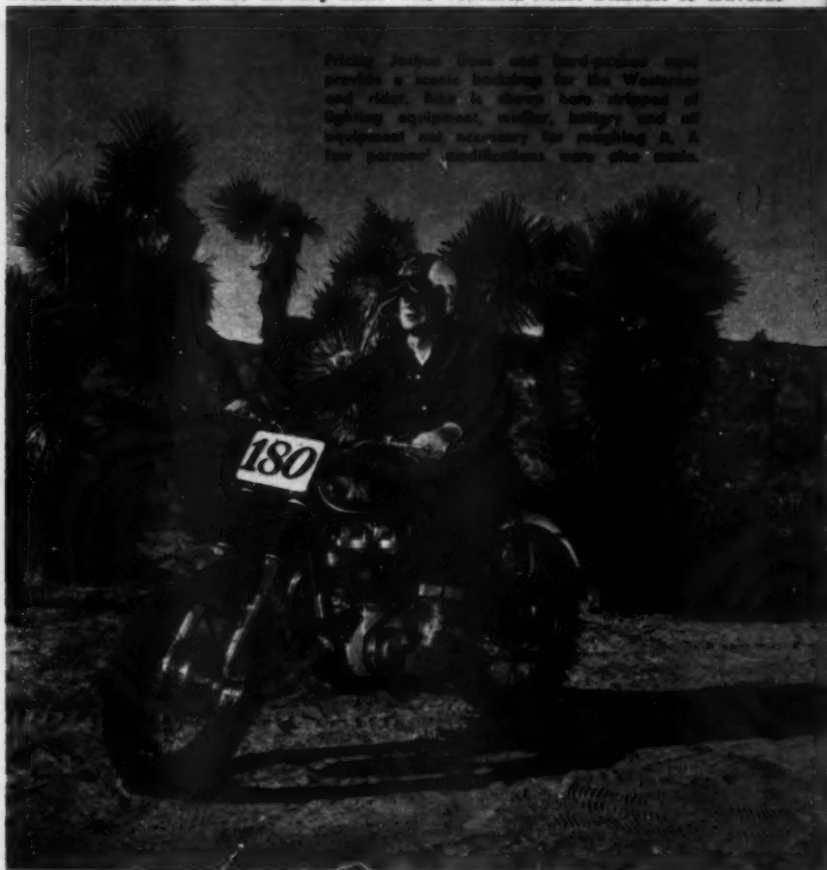
Charging down sandy trails or looping from one of his many tree-splattered gullies above down the face of the Mojave wilderness, the 500cc Westerner rides like it's on rails. Lack of disarming front wheel flip and tail wiggling allow highway speeds on trails.

# DESERT

By Lynn Wineland

**T**HE SEVEREST TORTURE CHAMBERS to which a man may subject his motorcycle are found in the weekly Hare and Hound races across the varied, always rugged terrain of southern California's Mojave desert. Rocky beds of tire-slashing lava fragments, miles of bottomless sand washes filled with jagged, brush-concealed stones, ditches, bumpy road crossings and steep, shale hills combine to wreak destruction on the unwary sider who ventures near. Difficult to traverse

Prickly Joshua trees and hard-packed sand provide a hostile backdrop for the Westerner and rider. Bikes in shown here stripped of lighting equipment, motor, battery and all equipment not necessary for roughing it. A few personal modifications were also made.



photos by pot brollier, motorcycling news, lynn wineland

## HOT IN THE DESERT

continued

under any conditions, the landscape becomes all the more torturous as racing speeds are attained. It was to this pit that we willingly and happily condemned the 1961 Matchless *Westerner*.

The Associated Motorcycle Company of London, England, with over sixty years of experience in the manufacture of Matchless cycles believes in sending a man to do a man's job. The robust 500 cc *Westerner* is well equipped to contend with the rigors of the battering desert events to say nothing of providing thousands of reliable miles of comparatively easy road riding. The ability of the Matchless to not only withstand but truly absorb the shocks of cross country racing is indicative of the longevity and cushioning qualities to be experienced in street use.

"Phenomenal" was the word we used after taking a friend's *Westerner* for a quick tour through the desert sage following a recent Hare and Hound and it was then that we selected the new Matchless as the subject for our current test. Dropping by the offices of The Indian Company Western Division in Burbank, California, local distributors of the Matchless line, we were allowed to select a new machine, still in the crate, for our use. "Setting up" the bike gave us an opportunity to carefully examine the quality workmanship as assembly took place. Although supplied with knobby tires for rough-housing off the road, the *Westerner* is completely equipped with street riding items such as muffler, battery, horn, head and taillights, and speedometer. Firm believers in the slow break-in, we tenderly nursed the new machine through 500 miles of commuting about Los Angeles streets and freeways before trotting out to our first session in the sod and sand. Make no mistake, the Matchless is ready to roar right out of the box, though fitted out in a compromise between strictly-for-street and all-out competition trim. The thirty-and-a-half inch single shown here and on the preceding pages was stripped of all items superfluous for chasing the rabbit and has been slightly modified in a manner

found to be more to this rider's personal liking and riding abilities.

Overall appearance and layout of the *Westerner* is well above par. This is a vehicle on which the average or larger rider feels at ease. The bars are situated nicely at the back of the steering head, sweeping up and back to provide comfortable hand positioning on the grips. The rider sits more nearly above the rear wheel than on many machines, an asset in improving tractive qualities. Foot pegs, sturdy, short, and blunt-tipped for safety are logically placed to allow the frequent leg exercises necessary when riding the rough stuff to be performed without undue muscular strain. The twinseat is wide and adequately padded so that no framework is felt on the insides of the thighs when bouncing offside, though some riders prefer a shorter, thicker and softer saddle for pure competition use. Layout of the controls is in standard pattern for the English machines with rear brake foot lever on the left and shift at the right. An indicator fixed to the shifting lever indicates gear selection. Right hand throttle action is fast, in competition tradition. Clutch, front brake, compression release, spark and choke controls are on the bar in standard placement. The headlight, fitted with ammeter and dimmer switch is bracketed from the front fork top covers and may be quickly removed for dirt riding by unscrewing two bolts and pulling the multi-pronged master plug. Switching on the lights is controlled from a panel just below the seat at the rider's left, forward of the 3 quart oil tank. Black enamel paint is used in copious quantities on the frame and accessories, offset by buffed aluminum and chrome. Standard tank color for the *Westerner* is red, striped in wide and narrow bands of silver.

The Smiths speedometer is mounted to the steering crown by a single bolt adequate for street usage, but too little support for the heavy instrument in cross-country riding, resulting in bracket fatigue and breakage on two occasions. A shock-mounted unit appears to be the practical solution to this problem as well as preserving the instrument itself from accuracy-destroying vibration, a big factor in enduros.



In the pits prior to start of Big Bear H&H, adhesive-backed tank card is applied so the crews at checkpoints can mark bike to indicate passage through check. Matchless was running in top form and eager for the fray. Carburetor was tuned for 3,000 ft. altitude.

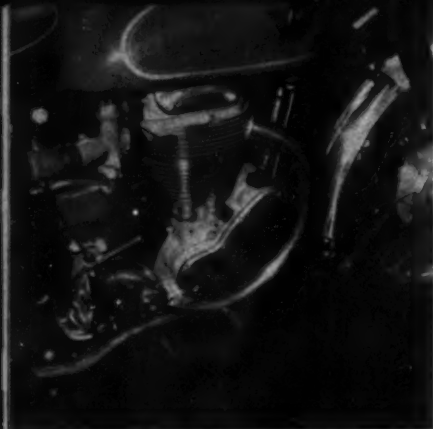
Deep, sandy trail is welcome after dropping down rocky mountainside. Big Bear run was a machinery buster in some sections though Matchless/Indian withstood battering without harm. Feather on helmet indicates that to be an Indian rider you must look like one.

The front forks are as exciting in action as they are beautiful in appearance. The buffed alloy sliders are capped with chromed spring covers which slip inside the enameled top covers. For dirt use many riders replace the metal items with accordion-style rubber boots to prevent dust from harming the action of the 2-way, oil damped *Teledraulic* units. A sensational ride is to be experienced as rock and brush seem to miraculously disappear beneath the telescoping front supports. So vivid was our impression that we returned to our own machine with a sign reading, "For Sale - One Brick - Cheap."

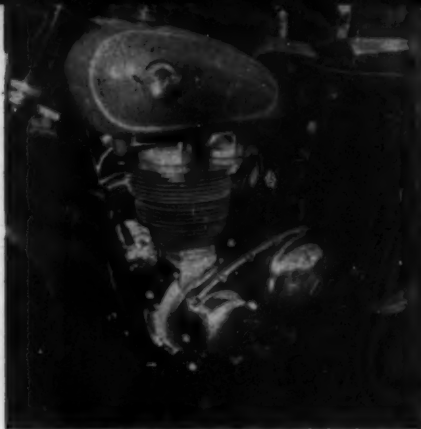
The 3.50 x 19 Dunlop Trials Universal tire at the front is well supported by the sturdy, chromed hoop and staunch, butt-jointed spokes leading to the cast alloy hub. The hub is quite deep, yet light and well supported by interior webs, providing wider support for the tapered wheel bearings, and increased

MAY, 1961

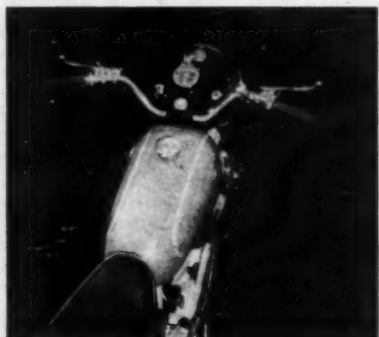




Timing side of 500cc engine reveals clean design with integral push rod tubes visible through fins on cylinder barrel. Matchless flying "M" appears on cam cover over chain leading to Lucas magneto. Toolbox behind cylinder has wingnut to secure hinged cover.



Drive side is dominated by buffed aluminum primary chain cover, albeit somewhat exposed to rocks because of frugal skid plate between loops of double tube frame. Gas tank mount pedestals are rubber snubbed. Plastic medallions on tank are easily broken in dirt.



Control layout is neat with handles and levers grouped in conventional manner on nicely swept, not-too-long handlebars. Gas cap takes some seating-in before leakage stops. First few tanks were kept purposely low to prevent any spilling. Gas tank is attractively striped. Amal Monobloc carburetor is well filtered by air cleaner in baffled canister housing. Battery is just below filter, has main wiring system below seat with horn, light switch and regulator. Four-speed transmission is small in size but rugged and very dependable. Tool kit supplied with scooter is complete with grease gun, tire irons, spanner for rear shock adjustment, clutch tool, point wrench and gauge, circlip pliers, standard pliers, adjustable jaw wrench, hexagon and spark plug wrenches and Whitworth open ends.

**MOD & CUSTOM**



Co  
oil  
Mo  
ad  
unc  
eq

**H**

sp  
me  
sid  
in  
ac  
fo  
ac  
ob

tw  
ste  
for  
th  
tar  
pa  
vil  
in  
str  
see  
vie  
wh  
pe  
sl

tw  
de  
th  
inc  
me  
No

MA



1960



1961



1960



1961

Comparison of 1960 (upper) and '61 (lower) oil pump parts clearly shows change made by Matchless to assure positive pressure and adequate supply of oil to crank and valves under all conditions. Spiral was extended equivalent to half again as much travel.

## HOT IN THE DESERT continued

spoke angle over that of the more common hubs gives greater resistance to side loads. The front brake is excellent in design, action and appearance. The actuating lever is tucked behind the left fork tube where it is protected from accidental application by hitting obstacles in the trail.

Of extremely rugged constitution, the twin tube frame swings down from the steering head to form a duplex cradle for the engine. The top bar, hidden by the rubber mounted, three gallon fuel tank, is bracketed to the uppermost part of the engine, thereby dampening vibration and at the same time rendering the engine a basic part of the frame structure. The frame aft members are securely bolted to the front section providing easy replacement of any pieces which might become damaged as well as permitting the frame assembly to flex slightly in action and ease stresses.

Coming on like Jack the Bear at a twist of the right wrist, the horsepower developed from the low end right on up the scale by the thirty-and-a-half cubic inch single is enough to make even the most blasé rider grin from ear to ear. Nearly "square" in bore-to-stroke ratio



Alloy sliders with chrome extensions in top spring covers create beauty in functional front forks. Axle is secured by caps similar to familiar auto connecting rod. Alloy fenders are trim, good looking and help keep down weight as well as splashing in wet weather.

the 3.39" diameter 3-ring aluminum piston travels 3.36 inches in the iron-lined alloy barrel. Valve seats are cast into the light alloy, die-cast cylinder head, seating the generous size, chrome plated, Stellite-tipped valves at 78° to the bore in the hemispherical combustion chamber. Cam action is from individual, gear driven camwheels actuating Hyduminium pushrods with screwed-in steel tips riding in hardened steel mushroom tappets. Valve springing is by duplex hairpin springs. Down in the lower end, the forged con rod rides on 14 roller bearings set in a Duralumin cage on a two-piece crank-pin made up with a hardened steel sleeve over the 85-ton alloy steel center pin. Individually balanced flywheels bracket the crankpin with the outer journal on the drive side supported by a double row of ball bearings and the timing side journal riding in roller bearings and a bronze bush. The oil pump, feeding pressure to all moving parts is of the double plunger, rotary reciprocating type, beefed up for '61 by extension of the spiral gear.

Of exceptional interest is the exterior of the engine which is the cleanest design to be found on any bike. Beautiful

*continued on p. 60*



## THE MINI-BIKE

**a boon to  
mobile mankind**

CONTINUED

Mini-bike does not pretend to compete with the vehicular facilities presently in use for these important public services.

It is sometimes mentioned that the noise factor—as yet associated with the standard Mini-bike—would constitute something of a problem. The answer, here, is quite logical. Before motorized vehicles were invented and introduced to the public, a much lower sound-level prevailed. It's no secret that life was a much quieter proposition in the day of the horse and buggy. Still, gifted with the ability to comfortably adjust, mankind accepted the noise of the automobile...and adjusted his hearing-level and his speech-level to compensate for the added cacophony of idling and racing engines.

So it would be with Mini-bikes. Mankind would simply adjust to the slight increase in sound and, probably without realizing it, never be aware that such an adjustment had ever taken place. It must be remembered that mankind met and survived (indeed, triumphed over) daytime radio and hi-fi and, more recently, stereo-sound in a similar fashion.

The one, remaining question many doubters will raise is one of speed. How, they may ask, can transportation be

maintained at the present speeds, most of them necessary to crossing the country without requiring four-months in which to accomplish the journey, were Mini-bikes to provide the national mode of mobility? The answer is simple and advantageous: Transport by Mini-bike *would*, of necessity, be a bit slower and more enjoyable. And safer. What the nation might seemingly lose in excessive speed, it would certainly gain in contentment and sheer, leisurely joy. Yet the Mini-bike is capable of speeds which spirit the rider quickly enough to his destination.

The next time you find yourself enmeshed in honking, racketing traffic—ask yourself if the world would not be a happier place were Mini-bikes the method of transportation. As those fellows behind you start their dreary fist-fight and the chaps in front of you lean madly on their klaxon-buttons, and your eyes roam over the entire, unhappy, noisome and wretched traffic snarl-up—try to visualize such a terrible instance ever occurring were maneuverable Mini-bikes beneath all those harried, nerve-wrecked individuals around you instead of those standard-size, clumsy automobiles lined up bumper for miles.

And, as you fidget there in the late afternoon sun among your traffic-tied fellows, give the Mini-bike some thought. *Great idea, isn't it!* ●



## Championship Thrills with a Peanut Budget



Championship Thrills with a Peanut Budget . . . are yours with the popular Go Kart Greenhorn Enduro or Go Kart Scrambler Cycle. Use it for transportation, racing, fun, cow-trailing, anything . . . anytime.

Now available with your choice of Candy Apple Racing Team Red or Candy Apple Thunderbolt Blue Baker Hi-Gloss Finish. Greenhorn Enduro (Clinton A-400) is only \$119, the charging Scrambler (West Bend #580) only \$149 . . . both ready for fuel and fun. See your Go Kart Dealer or write for free information.

**Go Kart** Manufacturing Co., Inc.

6475 IRWINDALE ROAD, AZUSA, CALIFORNIA



### FINEST CLUB PLAQUES IN THE NATION CUSTOM DESIGNED FOR YOUR CLUB!

- Heavy, 3-D aluminum or brass castings.
- Many stock designs for individual orders.
- Complete service, polishing, painting, drilling, mounts.
- Free literature.

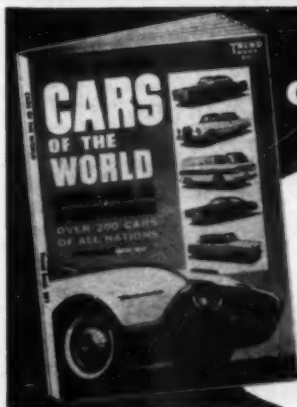
SEND 25¢ TODAY

For complete catalog on Emblems, Jackets, Decals, Plaques, Novelties — including information on how to start your club



**EMBLEM  
COMPANY**

1072-Q No. Wilton Pl., Hollywood 38, Calif.



## 1961 CARS OF THE WORLD

Pictures, prices and specifications of all production cars from the entire world. 1961 edition of this now world-accepted authority — and yours for only 75¢ at newsstands. See your newsdealer today.

**75¢**

AT YOUR NEWSSTAND



# 1961 FOX KARTS NASSAU WORLD'S CHAMPIONS



## FOX KARTS PLACE . . .

# 1<sup>ST</sup>

**CHUB CAREY**  
Rockford, Ill.

"A" Sportsman World Champion title winner, Chub Carey, topped the podium on his AM-58 Power Products equipped 1961 Go-Boy after having in a scintillating qualifying race—taps in his class. Chub's record performance bolstered the top three of most entries in the super class.



# 2<sup>ND</sup>

**DICK WIGNES**  
Princeton, Ill.

Swimming in championship tradition, Dick Wignes earned the title 2 spot in the "A" Open World's Championship event that truly matched the world's best in machinery and drivers. Wignes earned a 1961 Mak-Kart powered by a "Wignes-Worked" MC-10 engine in this grueling battle of the mighty Mac's.



# 3<sup>RD</sup>

**R. P. HARRISON**  
Gastonia, N. C.

R. P. Harrison played his W8700 powered Go-Boy into a solid third place title in the right "C" Sportsman event. R. P. took third position when teammate Duane Clemons dropped from the lead to make heavy repairs to the pit. Clemons re-entered the race and overtook all but the 3 leaders before getting the checkered flag.



The 1961 Fox karts have proven themselves where it counts—at Nassau in the toughest international competition. Fox had fewer karts entered and emerged with more top honors than any other make or factory team. All Fox karts entered were STANDARD 1961 models featuring Fox's all new single piece chrome-moly racing chassis. This spring-torque chassis, combined with the suspension action of the new multi-flex front axle, absorbs road shock and vibration before it reaches the driver.

Unique new foot-rest pedals hold feet safely in place and provide 6 inches more leg room. New demountable aluminum wheels are lighter and stronger than cast wheels and do not shatter under impact. Demountable feature permits tire and ratio changes in seconds.

Fully upholstered deep bucket seat allows

you to lean back and drive effortlessly—no need to hold yourself in with steering wheel. Standard tires, factory slicks, special recap slicks, and any type and combination of quick-change aluminum racing sprockets can be chosen to suit any track.

The 1961 Mak-Kart employs the same chrome-moly spring torque racing chassis but is smothered with a connoisseur's collection of ultra deluxe goodies designed to beautify and shave precious ounces—including Hands magnesium wheels, Hands aluminum taper lock sprockets, rubberized three spoke deep-dish steering wheel and a host of eye-popping chrome.

All Fox karts are available with full racing equipment—multiple carburetor set ups, "Wignes-Worked" McCulloch engines, LeMans, Palmini, Hands, GEM—all available. See your Go-Boy dealer today.



Dealerships and Distributorships Available.  
MAY, 1961

- ☐ 1. Rush me your free literature on the complete line.
- ☐ 2. Rush me a bucks (\$1.00) worth of the best karting information and the Fox karting catalog. \$1.00 enclosed.
- ☐ 3. Rush me a Battery Powered Go-Boy by Hawk and free literature. \$1.50 enclosed.
- ☐ 4. Rush me a Go-Boy Karting T-Shirt with full color kart on front and free literature. Comes childrens 4-16 and adults S M L. My size is \_\_\_\_\_. \$1.00 enclosed.

(Be sure to include your name and address)

**FOX GO-BOY KARTS**  
BOX 797 R, JANESVILLE, WISCONSIN



Dear Doane,

I am building a flathead for my '40 Ford coupe. Being I am married and in the Service I have very limited funds. So my questions are these: If I intend to bore oversize is there any difference between the stock '40 and a '48 Merc block? Can I bore the stock '40 out as far as the Merc? If so, I would like to, using stock pistons. Since this will be driven on the street everyday I see no need for racing pistons. I am told the '52 Merc crankshaft can be used in this engine without modification giving it a longer stroke. Are these pistons satisfactory also or are there some other type you would suggest? As you may be able to tell, this is my first rod and I would like to do it as well as possible, as inexpensive as possible. Any help that you can give will be greatly appreciated.

A/2c William W. Morrison  
903rd RADAR Sqdn (SAGE)  
Gettysburg, South Dakota

*The '40 Ford and '48 Merc blocks are definitely different. Bill. The Merc can be bored to 3 1/8" with a good safety factor, while a Ford can go no bigger, safely, than 3-3/16". The Merc crank will fit into the '48 Merc block with no modifications, but remember to order 1/8" low compression pistons when installing the longer Merc crank.*

Dear Doane,

In your December issue of R & C I noticed an article on "Chariot of the Sun" so I read it just out of curiosity. It stated that this '34 Ford was a Phaeton. I could be wrong but isn't it a Ford Touring Car? A Phaeton has windows that roll down into the doors, this ancient Ford does not have windows and most likely it has side curtains in place of the windows. I would like to know if I am right or wrong.

One final thing is that I have a '59 Rambler "6" with a stick and would really like to know how to get a little more performance from it without spending too much money.

I have been a reader of ROD & CUSTOM for the past year and a half and I think it is the greatest.

Arthur F. Krauss  
Flushing, N. Y.

*You are absolutely right in one sense, Art, it is a Ford touring car, which is synonymous with Phaeton. The dictionary states "a Phaeton is a light 4-wheel carriage with or without a top, having one, or more, commonly two, seats facing forward." The word Phaeton was used incorrectly by Mercury when they described their 4-door town sedan in '56 and '57. As for your Rambler "6"—a mill job on the head and a ground camshaft would do quite a bit toward making a "goer".*

Dear Doane,

I am interested in getting some information on an engine swap that I plan to do in the near future. The engine is a new Ford 390 cubic inch backed up with a hydro stick. My trouble is with the rear end. I plan to retain the pre-forty-eight rear. What I would like to know is what year Ford made an open drive shaft? I plan to split the rear torque arms and mount them on the frame. One last question; can you install a quick change rear with the open drive shaft?

James Stiles Patton  
Montgomery, West Virginia

*To answer your last question first, Jim, Halibrand makes a quick change for an open drive-shaft, using '48 Ford*

housings. If you don't go to the quick change you can use '42-'48 Ford pickup gears in your torque tube Ford rearend, as the pickup gears are for an open drive line.

Dear Doane,

I'm a reader of ROD & CUSTOM Magazine and always read your "Tech Specs". My problem is my clutch. I have a '51 Oldsmobile with an overhauled 1954 Olds engine, 324 cu. in., 185 hp. (3% pistons + .040"). Attached to it there is a '37 La Salle transmission, but I don't seem to get the right clutch for it. I have a heavy duty pressure plate and stock clutch, should I try a GMC pickup clutch? How big can I go on the size? Hope you'll help me.

I just go for your magazine.

Xavier Belmont  
Alhambra, Calif.

P. S. I'm on my third clutch. HELP!

Apparently you have been using stock factory lining on the disc and inadequate pressure plate pressure. Would suggest - Rusco Fuse Fabric lining on the disc and 24-2600 pounds minimum pressure plate. The stock 11" Olds 88 disc should be adequate with the above lining.

Dear Doane,

My problem is not uncommon but I can't seem to find a solution for it so I am pleading for some professional ad-

vice. My problem is "eating dust" on a 1/4 mile oval dirt track. I would like to know just how to build a good stock. Club rules limit me to 300 cubic inches, no engine newer than a 1953 and no GMC's or OHV V8's. I have a '32 Ford coupe body and if you can give me your opinion of what to put with it I will be more than grateful. I have been thinking of a Buick straight 8 but I don't know what bore and stroke to use or what cam to use. If you can refer me to someone who had had luck with Buick straight 8's I would appreciate it. I know I must sound like a 5-year-old child to you but I am 29 and I have built and driven my own cars since 1954, (just about as long as I have enjoyed reading ROD & CUSTOM) I am at a loss as to how to combine this Buick and Ford. I need to know what ignition to use, how to modify the carb (carb and outside must remain stock). No aluminum finned heads or dual carbs, etc. Also need to know what chassis, springs, shocks and differential to use, and what gear ratios. Also, tire sizes to run. Where to position engine for best handling and what front end and steering you would recommend. Hoping to hear from you soon, and thanks for whatever help you can give.

Pete FeDora  
Vestal, N. Y.

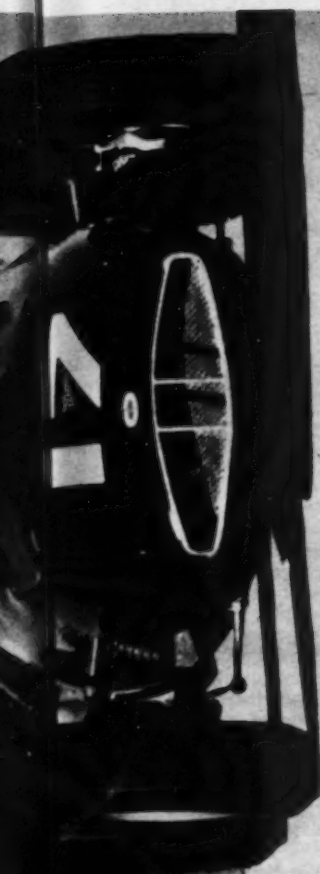
I would suggest keeping your '32 Ford all Ford. While old straight 8 Buick's are keen for anchors, I wouldn't say they would do too well for quarter-mile dirt tracks. As your club limits you to 300 cubic inches I would suggest a 3/4" x 3/4" Merc, using Phil Weiland "cheater" heads which are regular racing heads with standard outside appearance. Would also suggest using the wide selection of Getz gears somewhere in the neighborhood of 5 1/2-1; this way you won't have to run the car in second gear with the normal 4.11's or 3.78's. The engine should be positioned as far back as the rules will permit, for this varies with associations. As to the front end and steering, the Ford front end decambered works out good with a Franklin or similar steering of about eight-to-one ratio.



*On Sale Now*

# the **NEW** SPORTS CAR GRAPHIC





**SPECIAL CHARTER SUBSCRIBER OFFER . . . 12 ISSUES OF SPORTS CAR GRAPHIC FOR ONLY \$3.00.** (Regular price \$5.00 per year.)  
**ORDER SPORTS CAR GRAPHIC on the BILL ME LATER PLAN, or ENCLOSE \$3.00 with your order and receive 120 EXTRA COPIES . . . 16 ISSUES IN ALL FOR ONLY \$3.00.**

## Charter Subscriber Certificate

CHARTER RATE EXPIRES JUNE 15, 1961

**SPORTS  
CAR GRAPHIC**

5959 Hollywood Boulevard AC-561  
Los Angeles 28, Calif.

Please enroll me as a charter subscriber for **SPORTS CAR GRAPHIC**. Send me the next 12 issues and —

☐ Bill me later for \$3.00

☐ \$3.00 enclosed — send me 2 extra issues — making a total of 14 issues of **SPORTS CAR GRAPHIC**.

(NAME)

(ADDRESS)

(CITY)

(ZONE)

(STATE)

Sports cars greatest array of authoritative, enthusiastic editors re-introduce the new **SPORTS CAR GRAPHIC**. Capturing all the excitement of motor-ing for fun, **SPORTS CAR GRAPHIC** each month will bring its readers comprehensive coverage of sport and competition cars in depth. Behind the scenes; facts, photos, specifications. Complete coverage of all import cars. The quality winner in its field, the new **SPORTS CAR GRAPHIC** will go on sale at your newsstand beginning with the May issue.

**NOW, SPORTS CAR GRAPHIC brings you 1961's Formula 1 Forecast.**

- Competition Tuning • Track Tests • Road Tests on all New Major Imports • Technical Reports
- Coverage of all International Championship Races • Technical Advice • And many other Sports Car Features

## HOT IN THE DESERT

continued

fully finned and massive in appearance due to enclosure of all lines and push-rod tubes within the barrel casting, the 500 single appeals because of ease in cleaning. Fewer places for leakage and lack of outside paraphernalia lead to a dry-running engine where dirt won't cake and cut down on cooling efficiency. The primary chain case is of cast aluminum, easy to remove for maintenance, and is provided with large inspection holes for chain and clutch adjustment. The clutch action is smooth, due in part to the rubber vane shock absorber used on the multi-plate unit.

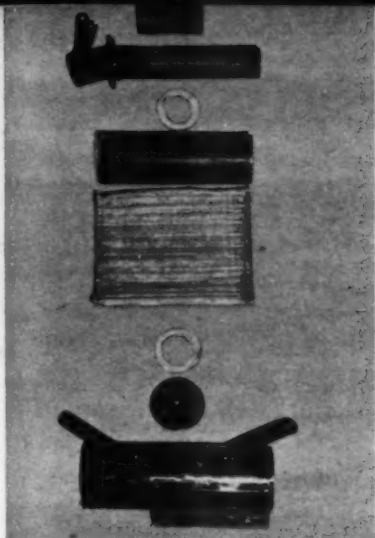
Gear ratios provided by the four-speed, synchromesh gearbox with stock rear wheel sprocket are near ideal for general street and cow-trailing use. Low is 14.85, 2nd is 9.85, 3rd is 7.08 and the top ratio is 5.80:1. Shifting is smooth, though some difficulty in finding the neutral position between 1st and 2nd while at rest occurred after the box had worn in a bit.

Fire for the "thumper" is provided by a water proofed Lucas magneto with a breather pipe to allow deep water crossings without drowning out. The ignitor sits forward of the barrel and is chain driven from a sprocket mounted on an extension of the exhaust cam. Fuel is metered through an Amal Monobloc 389/12 carburetor with a venturi diameter of  $1\frac{1}{16}$ ". Good economy and idling characteristics are to be experienced with the Monobloc, yet throttle response leaves nothing to be desired once proper jet sizes and needle setting have been attained. Tuning is critical on any small displacement engine and the Matchless thirty-incher is no exception when top performance is desired. For the dry atmosphere of the desert, at a median altitude of some 3,000 feet we found it necessary to decrease the main jet size some one hundred thousandths and lower the needle to the top notch, thus leaning the mixture all through the range. Some hesitation still occurred when rapidly cracking the throttle before full power was felt so the slide was filed

$\frac{1}{16}$ ", the equivalent of going from a #3 to a #5 slide. This corrected the deficit in response and we were thrilled at the staccato rap of the exhaust as the wick was turned up. The action was conveyed to the seat of the pants as well, for with the alertness of a burglar alarm the mount does its best to spring from between your legs and go sight-seeing.

One item worthy of its salt which Matchless has seen fit to install is the more than adequate air filter. Logically located directly behind the angle-mounted carburetor, the cylindrical housing has an integral baffle to protect the cleaner from a direct blast of water, sand or dirt. The cleaner element itself slips inside the frame-mounted cannister and connects to the carburetor bell with a tubing-reinforced rubber hose. The element is a square of flannel cloth between wire mesh, accordion pleated and rolled to slip between two tubes of perforated steel. Felt rings and steel caps protect the ends, with the end opposite that which ducts to the carburetor supported at the rear of the housing. Lightweight oil such as inexpensive cooking oil is used to saturate the filter cloth prior to use. After effectively screening the powdery alkaline dust encountered in several hundred miles of rabbit chasing we spent a moment to remove the cleaner, inspect it and service it. The inside of the cleaner was free of silt, though the exterior was well coated with oily grime. Gasoline quickly washed away the dirt, more oil was applied and the filter replaced with about fifteen minutes expended in the job. We are familiar with some filters which take hours to remove, clean, oil and replace.

Worthy of mention in the same breath are the two stands provided on the machine. Both of these fold well out of the way. The center stand is located behind the somewhat skimpy skid plate, held in the up position by a strong return spring and steel clip. The side stand or prop stand is also spring-loaded to the up position, but fails to arouse enthusiasm with many riders who prefer an over-center lock to prevent the stand from swinging up before bidden.



Excellent air filter is more complex than outside indicates. Perforated tubes slip inside and out of screen-reinforced, cloth filter element folded in accordion pleats. Baffles are seen at bottomside of housing.

The rear swinging arms which locate the rear wheel are hefty tubing with forged axle fitting brazed to the ends. The pivot point, located directly behind the transmission at the frame center down-tube, is well braced to prevent twisting and has large diameter, self-lubricating bushings with the cross tube acting as an oil reservoir. Rear suspension is by oil-damped spring units, easily adjustable to one of three positions to suit the weight of the rider. The spring/shock units are covered with enameled and chromed covers to keep out the dirt as well as increase the cosmetic effect of the bike. For pure competition many owners remove the top, painted cover and replace it with the lower, chromed one in inverted position. This modification prevents any possible tendency to bind if dented.

The rear hub and brake unit are similar to the front, being of cast alloy with internal webbing. The brake and 42-tooth, 50 pitch chain sprocket are bolted to the hub with six bolts and stop nuts. A shield covers the hub on the right side and a rubber plug allows

access to the grease fitting. Spokes from the hub to the 19-inch rear wheel are butt-jointed for strength without bends and are washered to prevent pulling through the hub. Spoke diameter is exceptionally generous, due no doubt to the factory's speculation as to how much punishment might be inflicted when their torquing single attempted to put its power on the ground by way of the 4.00 x 19 knobby Dunlop Sports.

Attached to the rear hub inner axle, the speedometer drive unit is virtually free of trouble and requires but little lubrication. Placement of the speedometer cable is another story; the factory runs them straight up, then forward to the instrument. A severe bump at the rear causes the wheel to bounce, bending the cable—generally into the tire, and there it is grasped by the tire knobs and snatched violently. Forewarned, we quickly re-routed the cable forward along the swing arm and there it has remained, troublefree.

Extending back from the aft frame section, a hoop brace, strong enough to be used as a lifting handle when needed, supports the wide, alloy rear fender and provides a mount for the taillight

continued on p. 65

## **WELD IT YOURSELF !** **IN A JIFFY !**

**Weld, cut, braze, solder, heat IRON, STEEL, BRONZE, BRASS, ALUMINUM & OTHER METALS . . .**

Auto, truck, shop and farm equipment break-down always cause annoying and costly delays. Don't let them bother you. Get a Dynamic transformer type Arc Welder. With the Dynamic you can also make your own wrought iron, household, lawn furniture and many knick-knacks. Do expert work on your first job. Operates from any properly wired 110 volt AC line. The handiest tool in your workshop. A Dynamic Welder will save its low cost of only \$38.50 f.o.b. in both time and money. Literature on larger equipment on request.

**DYNAMIC INDUSTRIAL type transformer Arc Welder**  
75 amp output for industrial or Workshop use.

**DYNAMIC WELDER CO.**  
Dept. D58-E, 1808 S. Federal  
Chicago 18, Ill.

**\$38.50 f.o.b.**  
Send only \$8.00 check or M.O.  
Pay Postman balance plus charges. 10 day money back and 1 year guarantee.  
**EASY PAY PLAN**  
Low down payment. Pay as you weld.



**Free Details and "How to Weld"**

Go Kart *Palmini*

MOSS



## EASTERN HEADQUARTERS

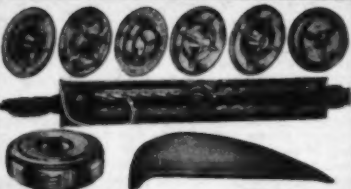
Hundreds of Parts and Karts listed in our Big Catalog. All the latest items for Kart and 1/4 Midget Racing. Wheels, axles, helmets, gas tanks, engines, carburetors, slicks, frames, steering parts, stuffers, Steen C, steering wheels, etc. Send \$1.00 today for catalog!

## CALIFORNIA SPEED & SPORT

296-E Jersey Ave., New Brunswick, N. J.

## NEW BI-RITE CATALOG FEATURES LOW PRICES

ON HUB CAPS • GRILLES • FENDER  
SKIRTS • TOOLS • CARB AIRCLEANERS  
and other accessories

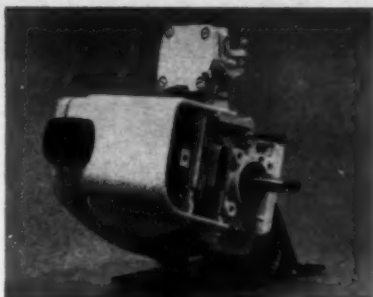


\*Dealers request wholesale catalog.

**FREE** catalog explains our  
profit-sharing program. Send  
25¢ cash for handling . . .  
refunded on first order.

## BI-RITE AUTO SPECIALTY

5536 W. NORTH (Dept. 44) CHICAGO 28



## McCulloch Introduces new MC-20

**S**TRENGTHENING THEIR hold on the limelight as producers of the kart engines which currently hold more national records and championship wins than any other marque, the McCulloch Corporation of Los Angeles recently set before the public a sample of the latest in two-strokes, the MC-20. Substantially more powerful than the renowned MC-10, its immediate predecessor, the "Mac Twenty" boasts a full 5.8 cubic inch displacement to put it right at the top of existing racing classes. Compression ratio of the ten pound engine is right at 9:1, providing plenty of punch as the rpm reaches an exhilarating 15,000. A new carburetor shares honors in improving horsepower output. Big 3/4-inch venturi for low air flow restriction and diaphragm fed fuel system with adjustable idle and high speed jets are prime features.

Similarity to the MC-10 ends with exterior glances. A thorough viewing reveals a new die-cast aluminum alloy cylinder and crankcase with cast iron liner and removable head. Fins are generous for best cooling under severe conditions of use. Oversize pistons are available for those to whom displacement limits are no obstacle. Ignition is of the flywheel magneto type with points readily accessible. Price is held low relative to the power obtainable—just \$137.50 for the familiar McCulloch yellow garbed mill, further enhanced by a chromed engine shroud and polished carburetor.

We're betting on the new 'Twenty to be as reliable, successful and popular as any of its famous forerunners. ●

ROD & CUSTOM



# RIGID TRACK TESTING

## PROMOTES GREATER SAFETY... IMPROVES PRODUCT DESIGN!

Fairbanks-Morse Clutches and Brakes provide safe, dependable performance you can count on! The superior quality you expect from this equipment is the result of rigid torture testing on our own, specially designed hairpin-turn track! Result . . . new safety . . . longer life.

Fairbanks-Morse automatic clutches are compact, adapt easily to all kart engines. Of centrifugal design, they engage automatically at desired engine speed. Easy to mount. Engagement speeds easily adjusted by the use of interchangeable springs. All outside parts chrome-plated. Complete range of sprockets.

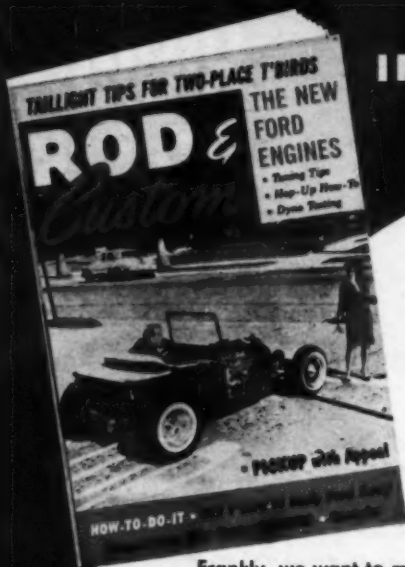


New Fairbanks-Morse 5" internal expanding brakes are quickly, easily installed on either live or stationary axes . . . adaptable to a wide variety of wheels and sprockets. Compact, rugged construction provides more reliable control.



For more information, including descriptive literature, write: Mr. R. D. Hisey; Magneto and Engine Accessories Division; Fairbanks Morse & Co., Beloit, Wisconsin.

**FAIRBANKS MORSE**  
A MAJOR INDUSTRIAL COMPONENT OF  
**FAIRBANKS WHITNEY**



## SPECIAL INTRODUCTORY OFFER

FOR  
NEW SUBSCRIBERS  
ONLY!

10 MONTHS OF  
ROD & CUSTOM  
FOR ONLY

**\$2.00**

Frankly, we want to make this special offer to show you  
the advantages of getting ROD & CUSTOM  
every month by mail.

### YOU WILL

- Get every copy without interruption
- Get your copy earlier
- Get your copy delivered to your door

**DON'T DELAY. TAKE THIS SPECIAL INTRODUCTORY OFFER;  
CLIP AND MAIL COUPON TODAY!**

## ROD & CUSTOM MAGAZINE

5959 Hollywood Blvd.  
Los Angeles 28, Calif.

Sign me up as a new subscriber. Send me the next 10 issues of ROD & CUSTOM for  
only \$2.00.

Name \_\_\_\_\_ RC-561  
(please print)

Street \_\_\_\_\_

City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_

## HOT IN THE DESERT

Continued from p. 61

and license bracket. A seemingly small thing, perhaps, but to this rider who has experienced having to lift 'em out of a hole dug by too much throttle and not enough momentum, the handle factor of this brace is a strong point indeed.

Exhaust noise is always a factor on the singles — called "poppers" for obvious reasons. When muffled for street use they often suffer a serious loss of power. If the compromise is to power, irate neighbors lose respect for the sport. The Matchless seems to have found the answer in a muffler of pleasing proportions, yet one which silences well enough to pass the most critical without devastating power loss. In addition, the muffler may be removed for racing leaving a proper length of pipe for tuned output, exhausting well to the rear of the rider.

The physical analysis of the '61 Matchless indicates an exciting potential. As with the pudding, the real proof lies in following through with its intended use. We subjected the *Westerner* to over 1,000 miles of grinding desert use in addition to the original break-in. It performed faultlessly throughout, requiring only routine maintenance in addition to the relatively minor repair of the speedometer bracket. The rides were engagingly, deceptively easy and this novice rider found himself riding competitively with a whole new group, well in advance of former performances. Downhills are negotiated with ease by a squeeze of the compression release which converts the engine to a huge air pump and allows the rider to float down in the gear of his selection. Uphill trails fall beneath the tires and slobby sand-washes become freeways as speeds of over 50 mph are attained. Choppy sand and fast cross country are equally the meat of the Matchless, its superb combination of long, 55 $\frac{1}{4}$ -inch wheelbase and great leading angle of the front forks teaming up to flatten any terrain.

Did we like the bike? How impressed can you get? Let it suffice to say that we bought one. This machine is, in words of the manufacturer: *Matchless*. ●



### LEAD THE PACK!

Whether you want your mini-bike for racing, sandlot fun or getting back and forth to work or school you'll be 'way out front on a Mini-A-Bike built from Delta Design's complete blueprints. All measurements, details — where to get parts, etc. Uses kart engine, wheels, etc.

Sent postpaid \$300  
California add 4% sales tax.

box 41001-N  
los angeles 41,  
california



### HOW TO RIDE AND WIN! BUY A

### MATCHLESS/Indian

Whether you are interested in sports riding or a reliable and comfortable road machine, visit your Matchless/Indian dealer and see the line for '61. Dealerships open in some areas. Inquiries invited.

#### THE INDIAN CO.

DEPT. RCS CHICOPPE FALLS, MASSACHUSETTS  
Western Div. 187 W. Valencia Ave., Burbank, Calif.  
Division of Associated Motor Cycles LTD.

NEW

CATALOG



#### CATALOG COUPON

SEND 25¢ TO COVER MAILING AND HANDLING, FOR NEW 1961 SURPRISE MONEY-SAVER CATALOG. 70% BIGGER AND BETTER THAN EVER. EACH CATALOG CONTAINS \$1.00 FREE CERTIFICATE. NEXT ISSUE SENT FREE.

NAME.....

ADDRESS.....

CITY.....ZONE.....

STATE.....

HONEST CHARLEY SPEED SHOP

Box RC 1904

CHATTANOOGA, TENNESSEE

MAY, 1961

65



**JIM HURTBISE**, 1960's FASTEST Indianapolis qualifier, stared at the picture on the wall. Sharing his concentration of glance was LeRoy Neumayer, one-time partner in rods with Art Chrisman, now a leading contender in Mid-West "big car" racing.

The object of their gaze was a photograph of George Burkhardt's haulin' highboy, the 212 mph lakes roadster. Both Neumayer and Hurtbise had been out of touch with rodding for some time, and hadn't realized how fast the boys were packing-down ol' El Mirage these days. But what was even more interesting to me was Hurtbise's comments on drag racing.

Better publicized than the lakes meets, the drags are well-known to the professional racing fraternity. Men like Hurtbise and Neumayer know their "who's who" of drag racing, and apparently never cease to marvel at the current going's on.

Jim remarked something to the effect that he was appalled at the amount of injuries and fatalities racked up in drag racing compared to the comparable record of professional racing. "You'd be better off at the Brickyard" was the way I believe he put it.

Hurtbise further stated he believed an equal level of skill was required; bearing out the point made in a previous "Just Chattering" that the only *safe* dragster drivers are the *good* ones; and that to be good *enough* you have to be as proficient at drags as the Indy drivers are at getting around the Brickyard.

Both these seasoned, yet still young, competitors gave the impression that most of their colleagues thought anyone who took the kind of risks dragster drivers do "for free" was a little soft in the noggin. And at this point the tie-in between dragster drivers threatening (periodically) to "go professional" began to acquire some new meaning for me.

Let's see now: Item One, professional race drivers think dragster drivers are taking big chances. Item Two, some dragster drivers think they should get paid for their performances. Possible Conclusion: That those who scream the loudest for professionalizing this amateur sport *may be those who are scared the worst!*

Hurtbise and Neumayer *should* get paid if they drive a dragster — or any other kind of competition car. After all, it's their business. But should the guy who has another line of work, that races ostensibly for fun, get paid for *his* driving? I don't think so; at least not without a complete separation from amateur competition.

Think of all the things that you don't like about drag racing today, and then see how many of them would disappear if the pros and the amateurs weren't running on the same strip. Athletics proved the impossibility of mixed pro-amateur competition; what are *we* trying to prove? ●

THE LATEST IN SPEED  
SECRETS FROM THE  
EDITORS OF  
HOT ROD MAGAZINE

# 1961 HOT ROD ANNUAL



A Master Reference  
to provide you with  
scores of ideas  
you can use now—  
Speed Secrets that  
have helped to  
set national track  
and strip records.

RACE TO YOUR NEWSSTAND TODAY!

**TREND**  
BOOK 75¢

# 1960 GRAND NATIONAL CHAMPION

## Go Kart

Go Kart 800 is THE Grand National Champion, winning Sweepstakes at both Grand Nationals, winning 6 National Class Championships, and establishing 8 Grand National Track Records.

Here's proof of the proven Go Kart 800 —

*OKCA 1960 Sweepstake Champion and Super C Champion  
NAKA 1960 Sweepstake Champion, and Class A, Super B, and C  
Champion  
Kart International, Mexicali, Mexico, Sweepstake Champion  
Tecate Enduro, Mexico, 1960, 5 of first 7  
Escalon 2nd Annual Jamboree, 1960, Class A, Super A, and C  
Champion*



For the complete specifications on the Proven Go Kart 800, send \$1.00 (Refundable on first order of \$10.00 or more) for your 62-page catalog to:

### CARNES CYCLE SHOP

8459 Foothill Blvd.  
Sunland, California

### STANLEY MARSH

119 West 29th Street  
Hialeah, Florida

### JACK'S CHAINSAW COMPANY

4122 Broadway  
Macon, Georgia

### B & G 12th STREET AUTO REPAIR

1215 Washington Court  
Wilmette Illinois

### KARTING SUPPLY COMPANY

1513 West Lake Street  
Minneapolis, Minnesota

### SPEED ACCESSORY SHOP

812 1st Avenue N  
Great Falls, Montana

### WESTERN GO KART SALES

1510 Airport Road  
Reno, Nevada

### CALIFORNIA SPEED & SPORT

298 Jersey Avenue  
New Brunswick, New Jersey

### QUICK'S KARTING, INC.

2220 South 9th East  
Salt Lake City, Utah

### DAVE'S KARTS AND PARTS

4560 South Whitnall Ave.  
Milwaukee 7, Wisconsin

n

OP  
N  
na  
ES  
ad  
da  
RT  
ue  
ey  
NC.  
ast  
ah  
TS  
ve.  
sin